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Comparison and evaluation of Vitamin D levels in children with and without caries
Deepshikha Soni
National Dental College and Hospital, Dera Bassi, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Vitamin D status in childhood and adolescence may play important role in prevalence of dental caries.
Aim: To compare and evaluate Vitamin D level in children with and without caries.
Materials and Methods: A total of 30 children between the age 4 and 7 years were selected for study. The sample was divided into Group 1 (15) children with caries and Group 2 (15) control group. Caries status of children was recorded using DEFT index. Blood samples for serum Vitamin D were taken and data collected were subjected to appropriate statistical analysis.
Results: Experimental group showed mean serum Vitamin D level of 13.19 mg/ml and control group showed mean serum Vitamin D level of 21.11 mg/ml.
Conclusion: A deficiency in mean serum Vitamin D levels may be implicated as a risk factor for incidence of dental caries.

Comparison of oral and intranasal midazolam sedation in 3-6-year-old uncooperative dental patients
Kritika Bajaj
National Dental College and Hospital, Dera Bassi, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Preoperative anxiety in children leading to behavioral problems incurred during dental treatment needs better preanesthetic sedation. Among the drugs used for alleviating anxiety in children, midazolam is one of the most commonly used.
Aim: The aim of study was to compare the effect of intranasal and oral midazolam in children with appreciable levels of dental anxiety.
Materials and Methods: A total of 15 children between the age 3 and 6 years selected for study who required at least two dental treatment visits. Cases were randomly given midazolam through oral and intranasal routes in each visit.
Results: Results were analysed using houpts scale. Intranasal administration of midazolam is more likely to improve patient cooperation compared to oral sedation.
Conclusion: Intranasal midazolam gave more satisfactory outcome than the oral midazolam when sedating uncooperative children.

Impact of handheld devices on children: An evaluation using IQ and dependency behaviour
Nikita Sobti
Mahatna Gandhi Dental College and Hospital, Jaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research
Introduction: The existence of gadgets brings benefits to children like improving knowledge but, there are evidences that continuous use of these devices is concerned with alterations on physical, personal, social and mental development.
Aim: To evaluate both the positive and negative outcomes of handheld devices amongst children whose parents documented the usage with respect to IQ and dependency behaviour.

Materials and Methods: 100 children aged (5-10) years were selected for study. Multiple self-administered questionnaire and standard IQ tests were prepared for them. These were provided to the parents and children in the written format who provided the answers.
Conclusion: The data was statistically analysed and it was concluded that those children who were using the devices had higher IQ but they also showed dependency on the devices.

Acupressure: A new way to manage dental anxiety
Manisha
Genesis Institute of Dental Sciences and Research, Ferozepur, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental anxiety in children presents a challenge to the child, parents and the dental team. This, in turn, leads to difficulty in behaviour management, avoidance of dental care and poor oral health outcomes. The assessment of dental anxiety is necessary in order to overcome these problems and facilitate diagnosis and treatment while also guaranteeing a pleasant dental visit. Our primary goal is to build an affirmative relationship between the dentist and child. Changing attitudes on the module of dentists and parents identical have resulted in rising concern by dentists to develop supplementary child behavior management techniques. Acupressure is a non-invasive variant of acupuncture and is known to reduce general anxiety. It can be one of the effective guidance methods for children that are easy and cost effective with minimal adverse effects.

Effectiveness of powered and manual tooth brushing on oral hygiene status of autistic children
Sanu Susan Sam
A J Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Autism is a lifelong neurodevelopmental disease characterized by qualitative abnormalities in social interaction. The dental environment of these children are challenging with limited capabilities and characteristics.
Aim: Effectiveness of powered and manual tooth brushing on oral hygiene status.
Materials and Methods: Included 40 children aged 6-12 divided into 2 groups. Group 1 WAS taught to brush using powered and 2 using manual tooth brushes with the help of audio visual aids (AVA). Baseline and 30th day OHI-S values were checked and statistically analyzed.
Results: Calculus index is statistically significant (P=0.015) at the end of 30 days in Group 1 and a marked reduction in OHI-S scores in both the groups were observed.
Conclusion: Powered toothbrush has superior results even in autistic children with high tactile sensitivity and sensory abnormalities. THE use of AVA also helps in improving their oral hygiene status.

Catch up with patch
Risana
KMCT Dental College, Kozhikode, Kerala, India

Presentation Type: Oral
Category: Original Research
Purpose: to clinically evaluate efficacy of lidocaine bioadhesive patches as sole anaesthetic agent for dental extraction and evaluate comfort and
Methodology: 35 children between age group 8-12 years requiring extraction were selected for the study. Extraction was done with lidocaine bioadhesive patches. Patients response was recorded with VAS and SEM scale.

Results: Group 2 (higher age group) exhibited lower VAS and SEM scores. Grade III mobility response to VAS and SEM in both gender and groups were similar. Grade II mobility response to VAS and SEM score was less in upper arch in both groups. Grade I mobility higher SEM was reported than VAS in both arches and both groups, girls reported higher VAS score.

Conclusion: Lidocaine bioadhesive patch has proven efficacy and can replace infiltration anesthesia in pediatric dentistry for dental extraction.

Is fibreglass the new esthetic crown?

Vignesh
Saveetha Dental College and Hospital, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research

Purpose: To evaluate amount of tooth reduction for stainless steel crown, zirconia crown and fibre glass crown in primary first molar.

Methods: Thirty primary posterior typodont teeth were divided into three groups and assigned to: 3M ESPE SSC, Figaro crowns and nusmile ZR crowns. Teeth were prepared, and assigned crowns were checked for FIT. Teeth were weighed prior to and after preparation. Weight changes served as a surrogate measure of tooth reduction.

Results: On applying tukeys honest significant difference test, it revealed a significant high mean difference between SSC & nusmile ZR followed by nusmile ZR & Figaro and Figaro & SSC. It Implied the highest tooth reduction with nusmile ZR and least with SSC.

Conclusions: Zirconia crowns required more tooth reduction than stainless steel crowns. Fibreglass crowns can provide an alternative due to lesser preparation and acceptable esthetics.

Evaluation of compressive strength, shear bond strength and microleakage of posterior glass ionomer to dentin of primary teeth with varied mixing time: An in vitro study

K Korath Abraham
Mar Baselios Dental College, Thrissur, Kerala, India

Presentation Type: Oral
Category: Original Research

Reducing mixing time of a cement to increase the working time is a common practice.

Aim: To evaluate compressive strength, shear bond strength, microleakage between 2, 6 and 10 seconds of mixing time with Fuji IX capsule.

Methods: 3 main groups of 2, 6, 10 with 3 subgroups of compressive strength, shear bond strength and microleakage with 5 samples in 9 groups totalling 45. Samples were exposed to thermocycling. Instron and stereomicroscope were used to test the parameters.

Results: Compressive strength with 82.142, 92.262, 98.348 for 2, 6 and 10 seconds. Microleakage with 2 seconds had 40% enamel and 60% dentine penetration. 6 seconds had 40% no, 60% enamel penetration. 10 seconds had 80% no, 20% enamel penetration.

Conclusion: Decreased mixing time significantly increased microleakage.

Randomized in vivo evaluation of clinical effect of photodynamic therapy on primary carious dentin after partial caries removal

Yashi Andley

Sudha Rustagi College of Dental Sciences and Research, Faridabad, Haryana, India

Presentation Type: Oral
Category: Original Research

Introduction: PDT a minimally invasive effective innovative method for treatment of pathogens with photoactive dye in the presence of oxygen.

Aim: Test in vivo two pact protocols & compare antimicrobial chemotherapies in treatment of deep caries lesions in primary teeth by means of microbiological and clinical evaluations.

Methods: Randomised split mouth clinical trial 34 children 4-8 years with decayed deciduous molars divided into two groups - Group 1= LMB (methylene blue), Group 2= LC (curcumin). sample of infected dentin before PDT and after PDT was taken. Samples were microbiologically assessed & compared efficacy of both photosensitizer dye.

Results: Statistical analysis presented higher proportion of cases in Group 1 with bacterial elimination and reduction of bacterial number after photodynamic therapy.

Conclusion: PDT an effective method of removal of microorganisms from deep carious lesions, support healing processes in the dentin and dental pulp.

Effect of extra-oral drying on the surface topography and fibroblast attachment potential of root surface of permanent teeth: An in-vitro study

Ankita Chaudhary
All India Institute of Medical Sciences, New Delhi, India

Presentation Type: Oral
Category: Original Research

Introduction: The prolonged extraoral dry time for an avulsed tooth before replantation leads to loss of vitality of periodontal ligaments. Maintaining the vitality of periodontal ligament and reattachment still remains big challenge.

Aim: Difference between cementum surface of dried and undried root and fibroblast re-attachment was studied using scanning electron microscopy on extracted teeth.

Methods: Ten extracted teeth preserved in dmem storage media were randomly allocated into two groups: experimental (extraoral dry time of 60 minutes) and control (without drying) group. One half of each root surface topography was seen under sem & other was examined for fibroblast attachment after incubation in fibroblast culture for 48 hours.

Results and Conclusion: After 60 minutes drying time, root surfaces showed more surface porosities and crater formation than controls. Fibroblast attachment potential was also significantly reduced. 60 minutes of drying time is likely to adversely influence the outcome of tooth replantation.

Comparative evaluation of various nonpharmacological behaviour management techniques

Sarbojit Chakraborty
Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research

The primary desire of every pedodontists is to treat his/her patients in an anxiety-free environment by implementing his/her learned skills, experience and advanced technology. It can be achieved by various non-pharmacological behaviour management techniques. The aim and the objective of this study were to compare anxiety level by using tell-show do, audio distraction, audio-visual distraction by using jeet anxiety scale and evaluate pain perception by using vas scale. Materials used for the study were bluetooth wireless earphone, virtual reality box, pulse oximetre, conventional la syringe, local anaesthesia solution,
Institute of Dental Sciences Bareilly, Bareilly, Uttar Pradesh, India

Aamna Rahat

Comparison of antibacterial efficacy of various combinations of antibiotic paste as intracanal medicament in multiple visit pulpectomies in primary molars: An in vivo study

In vivo

in vivo

in vitro

in vitro

A comparative evaluation of efficacy of electronic apex locator, radiovisiography and conventional radiographic method for root canal working length determination in primary teeth: An in vitro study

Sharon Jaiswal

Presentation Type: Oral

Category: Original Research

Background: Chemotherapy is the mainstay treatment for all, but it has an inherent drawback of cytotoxic action on oral mucosa and salivary glands.

Aim: To assess the changes in oral health status and salivary parameters in children while undergoing chemotherapeutic induction for all.

Materials and Methods: Twenty four patients aged 3-12 years, diagnosed with all were enrolled. Oral hygiene status and salivary parameters viz., salivary flow rate, pH, buffer capacity and absolute neutrophil counts (ANC) were recorded at two time points; at baseline and post induction phase of chemotherapy.

Results: All salivary parameters were found to worsen after induction phase. These values showed an indirect correlation with the ANC of individual patients. Though gingival and plaque scores showed an improvement.

Conclusion: Chemotherapeutic induction has adverse effects on salivary parameters, thereby rendering the oral cavity conducive for formation and progression of infectious lesions.

Oral health status in children undergoing chemotherapy for acute lymphoblastic leukemia

Richa Mishra

PGIMER, Chandigarh, India

Presentation Type: Oral

Category: Original Research

Background: Chemotherapy is the mainstay treatment for all, but it has an inherent drawback of cytotoxic action on oral mucosa and salivary glands.

Aim: To assess the changes in oral health status and salivary parameters in children while undergoing chemotherapeutic induction for all.

Materials and Methods: Twenty patients aged 3-12 years, diagnosed with all were enrolled. Oral hygiene status and salivary parameters viz., salivary flow rate, pH, buffer capacity and absolute neutrophil counts (ANC) were recorded at two time points; at baseline and post induction phase of chemotherapy.

Results: All salivary parameters were found to worsen after induction phase. These values showed an indirect correlation with the ANC of individual patients. Though gingival and plaque scores showed an improvement.

Conclusion: Chemotherapeutic induction has adverse effects on salivary parameters, thereby rendering the oral cavity conducive for formation and progression of infectious lesions.

Presentation Type: Oral

Category: Original Research

Introduction: Pulpectomy helps to maintain integrity of primary dentition and the arch. Nowadays, various techniques are available to determine working length. Hence in vitro study was done to evaluate and compare efficacy of different methods for working length determination.

Aim: To compare efficacy of electronic apex locator (EAL), digital radiograph (DR) and conventional radiograph (IOPAR) for root canal working length determination in primary teeth.

Methods: 90 extracted primary teeth were selected, working lengths were recorded by EAL, DR, IOPAR and compared it with actual working length by visible method (control group).

Results: Accuracy of EAL found to be 99.7% followed by DR (99.6%), IOPAR (98.1%). EAL and radiographic methods showed high correlation while mean working length of root canals were compared, results were statistically non-significant.

Comparison of antibacterial efficacy of various combinations of antibiotic paste as intracanal medicament in multiple visit pulpectomies in primary molars: An in vivo study

Aamna Rahat

Institute of Dental Sciences Bareilly, Bareilly, Uttar Pradesh, India

Presentation Type: Oral

Category: Original Research

Introduction: Mechanical instrumentation alone does not have the ability to provide bacteria-free environment. This can be achieved through intracanal medicaments. Tap has been proposed as root canal medicament due to its antimicrobial effects.

Aims: To compare the antibacterial efficacy of various combinations of antibiotic paste as intracanal medicaments.

Methods: 80 teeth from subjects were divided into 4 groups Group 1: ciprofloxacin, metronidazole & clindamycin (1:3:3) Group 2: ciprofloxacin, metronidazole & minocycline (1:3:3) Group 3: ciprofloxacin, omidazole & minocycline (1:3:3) Group 4: formoresol (control group) bacterial samples collected at 1, 2 & 3 visit & streaked on blood agar petriplates, assessed under both aerobic & anaerobic conditions, then CFUS were calculated.

Results: Group 1 had the highest antibacterial efficacy followed by Group 3, 2 & 4.

Conclusion: Different combinations of antibiotic paste caused significant reduction in the count of aerobic & anaerobic bacteria, supporting the role of tap as intracanal medicament.

Influence of potassium iodide on the staining ability of silver diamine fluoride: An in vitro study

P Anjugam

Vivekanandha Dental College for Women, Namakkal, Tamil Nadu, India

Presentation Type: Oral

Category: Original Research

Introduction: Silver diamine fluoride (SDF) prevents caries occurrence and progression. But a significant disadvantage is the black staining. Studies justifying use of potassium iodide (KI) to mask SDF staining has no enough documentation.

Aim: To assess quantitatively the staining ability of SDF and the influence of KI on lightening Sdf staining.

Methods: Twenty premolars standardized by location and size of carious lesion were grouped into Group a and b (n-10). Group a was treated with 38% SDF and Group b was treated with 38% SDF followed by KI and sequentially photographed at preset time lapse. All samples were evaluated with image processing software.

Results: Group a had highly significant staining values from baseline.

Children perception of a dentist: A mixed-methods study

Shivangi Manek

Yerala Medical Trust and Research Centre's Dental College, Mumbai, Maharashtra, India

Presentation Type: Oral

Category: Original Research

Introduction: Assessment and modification of child behaviour is essential in providing good paediatric dental care. Dentist also gets assessed by the child in different ways. How children assess their dentist and their expectations from the dentist is less known.

Aim: To assess the perception of 9-12 year-old children towards dentists.

Methodology: Fifty, 9-12 year-old children, reporting to the department were included. This study comprised of a pre-validated questionnaire for quantitative analysis and the qualitative report of children views of dentist which were video recorded until saturation was reached.

Results: 74% children preferred a female dentist, 62% preferred coloured coat and formal attire and 42% approved mask as a dental protection. Qualitative analysis revealed that children wanted their dentist to be nice, young and ‘like their family members.

Conclusion: Assessing childs perception may help a dentist meet their expectations.
Assessment of knowledge, attitude, and awareness among parents towards space maintainers in primary dentition
Tanvir Sidhu
MM College of Dental Sciences and Research, Mullana, Haryana, India

Category: Original Research
Presentation Type: Oral

Introduction: Space maintainers are used to maintain space, so as to guide the unerupted teeth into proper position in the arch. But the treatment plan might get affected by the parents' perception and awareness of the dental treatment to preserve primary tooth space.
Aim: To assess the parents' knowledge, attitude & awareness towards space maintainers.
Methods: A questionnaire survey comprising of 15 questions was carried out among 271 parents.
Results: About 46.9% of parents reported adequate knowledge and awareness about the importance of space maintainers in primary dentition.
Conclusion: Majority of parents were unaware of the importance and the maintenance of the space maintainers indicating a need for more comprehensive educational programs to enhance their knowledge.

An in-vivo comparison of the accuracy of new generation apex locator and digital radiography in determination of root canal length in primary molars
Vaibhav Sharma
Daswani Dental College and Research Centre, Kota, Rajasthan, India

Presentation Type: Oral

Category: Original Research

Aim: The study was conducted to compare the accuracy of apex locator and radiography in determination of root canal length in primary tooth roots.
Materials and Methods: A total of 91 roots were evaluated which were indicated for pulpectomy in children aged 3-8 yrs old. After local anesthesia was administered and access cavity was prepared with no-10 round bur, pulp was extirpated with barbed broach followed by thorough irrigation of the canals. Initial working length was obtained with new generation apex locator with 10 no k file, which was compared with radiography.
Results: Data was tabulated and analysed using spss and there was no statistically significant difference found when using ‘Root ZX Mini’ apex locator for working length determination as compared with radiography.
Conclusion: Electronic apex locator use is recommended in pediatric dentistry because of its ease and accuracy is close to that of radiography.

Comparative evaluation of antimicrobial efficacy of tea tree oil and Rosa damascena Mill oil mouthwashes on salivary Streptococcus mutans in 8–15 years school going children, Tirupur town, Tamil Nadu: An in vivo study
E S Yamunadevi
Vivekananda Dental College for Women, Tiruchengodu, Tamil Nadu, India

Presentation Type: Oral

Category: Original Research

Introduction: Herbal agents such as tea tree oil and Rosa damascena Mill oil is used for their better antimicrobial properties.
Aim: To evaluate and compare the antimicrobial efficacy of tea tree oil and Rosa damascena Mill oil on salivary levels of Streptococcus mutans.
Methods: A double-blinded, prospective interventional study - conducted in school children aged 8-15 years. Study participants - divided into three groups: Group 1 (Rosa damascena Mill oil), Group 2 (tea tree oil), Group 3 (chlorhexidine). The variables studied include salivary Streptococcus mutans counts - recorded at baseline, 4 weeks after supervised mouthrinse and after 2 weeks of stopping the mouthrinse.
Results: Highest antimicrobial activity against S. mutans was seen in chlorhexidine followed by Rosa damascena Mill oil & tea tree oil.
Conclusion: Rosa damascena Mill oil and tea tree oil might be an alternative to chlorhexidine.

Association of caries status, with caries risk using ecraft and reduced cariogram in three to six year-old children: A pilot cross sectional study
Nivedita Pande
G.D Pol Foundation, Y. M. T. Dental College and Hospital, Navi Mumbai, Maharashtra, India

Presentation Type: Oral

Category: Original Research

Introduction: Caries management must be risk based. Craft is a mobile app-based caries risk assessment tool that needs to be compared to the existing tools like reduced cariogram.
Aim: To assess the association of caries status, with caries risk using "craft" and reduced cariogram in 3-6 year old children.
Methodology: Thirty healthy 3-6 year-old children were assessed for caries status using DMFT. caries risk was recorded using craft and reduced cariogram. Intra-examiner reliability for DMFT was assessed using cronbach’s alpha. Correlation between caries and risk was assessed using pearson’s coefficient.
Results: Intra-examiner agreement for DMFT was strong (alpha=0.998).

Evaluation of knowledge, attitude, practice and opinion regarding pediatric obstructive sleep apnoea and its clinical aspects among specialised healthcare providers of Punjab: Cross sectional study
Basil Joy
Christian Dental College, Ludhiana, Punjab, India

Presentation Type: Oral

Category: Original Research

Introduction: Paediatric obstructive sleep Apnoea (POSA), considered most severe in the spectrum of sleep-disordered breathing, with a prevalence of 1% to 4% among children.
Aim: The aim of this study is to investigate knowledge, attitude towards and aspects of clinical practice regarding paediatric obstructive sleep Apnoea (POSA) among specialized healthcare providers.
Methods: The survey questionnaire consisted of demographic data, items on specialized healthcare providers’ basic knowledge of Posa ND factors associated with it, items addressing attitudes and opinions, items asking to mark previous clinical experiences. The pilot study was undertaken in Punjab of sample size of 30 subjects.
Results: This study shows significant difference in the clinical experience to treat posa among specialized healthcare providers.
Conclusion: The study highlights the need for greater knowledge among specialised healthcare providers regarding the diagnosis and treatment of POSA.

Evaluation and comparision of molar incisor hypomineralisation - Treatment need index and molar hypomineralisation severity index in patients with MIH: A pilot study
Alpana Kumari

G.D Pol Foundation, Y. M. T. Dental College and Hospital, Navi Mumbai, Maharashtra, India

Presentation Type: Oral

Category: Original Research

Introduction: Hypomineralisation is a common developmental defect of dentine and enamel that is associated with various dental and systemic conditions.
Aim: To compare the treatment need index and molar hypomineralisation severity index in patients with mild to severe MIH.
Methods: A cross-sectional study was conducted among patients with MIH. The subjects were divided into mild (TNI 0-2) and severe (TNI 3-5) groups. The data was collected using a structured questionnaire and clinical examination.
Results: The mean TNI was 3.05 ± 1.26 in the mild group and 5.40 ± 1.42 in the severe group. A significant difference was observed between the two groups (p < 0.001).
Conclusion: The study highlights the need for a standardized treatment need index for MIH.

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Abstracts

Christian Dental College, Ludhiana, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Molar incisor hypomineralisation is a qualitative defect of enamel with prevalence ranging from 2.4 to 40.2%. This defect usually involves one to four permanent first molars and permanent incisors.
Aim: The aim of the study is to evaluate and compare molar incisor hypomineralisation—treatment need index & molar hypomineralisation severity index in patients with MIH.
Methods: The study was done on a sample of 20 patients of 6-12 yrs with MIH. Visual inspection of teeth without drying them was done. MH-TNI & MH-TSI was used simultaneously to measure the defect of MIH and scores were recorded.
Results: The study shows that maxillary molars had greater percentage of defect spreading close to pulp along with hypersensitivity as compared to mandibular molars. There was significant difference between defect of maxillary and mandibular incisors.
Conclusion: There is significant difference between defect of MIH in molars and incisors.

Nanosilver flouride a new anticaries agent in disadvantaged communities: A clinical trial
Sathwika Thota
Mamata Dental College, Khammam, Telangana, India

Presentation Type: Oral
Category: Original Research
Aim: To investigate the effectiveness of a new anticaries agent, nanosilver flouride (NSF), applied once a year to arrest caries in children.
Methods: A total of 100 deciduous molars from 60 children (4-9 yrs) were allocated randomly into 2 groups experimental group (NSF) n=50 and control group (saline) n=50. Teeth were clinically diagnosed, treated by 1 examiner and followup assessment was done after a 7 days, 5 and 12 months by another calibrated examiner who was blinded to the technique. The criteria of the ICDAS II were followed to determine the activity of lesion. The Pearson's Chi square test was used to compare the groups.
Results: 78% of decayed teeth showed arrested dentin at 7 days, after 5 months 72.1% of the teeth showed arrested caries, control group: 34% of teeth showed arrest of caries. After 12 months analysis in the NSF-65.21% of teeth showed arrested lesions, and in the control group showed 28.88% arrested lesions.
Conclusion: Nanosilver flouride is a new anticaries agent and presence a noninvasive option for caries arrest in disadvantaged communities.

Dental anxiety in visually impaired children
Vinod Kumar
Navodaya Dental College, Raichur, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental anxiety have a substantial effect on visually impaired children. Determination of dental anxiety makes it possible to design intervention programs aimed at reducing the anxiety levels in visually impaired children.
Aim: To assess the dental anxiety before and after a dental visit in visually impaired children.
Methods: Total of 144 institutionalized visually impaired children (6-13 years) participated in the study. Dental anxiety was assessed pre and post dental visit using a modified dental anxiety scale (MDAS) printed in braille text. Statistical analysis was done using the Wilcoxon matched-pair sign test.
Results: Pre-dental visit 78 (54.1%) participants had severe dental anxiety, 52 (36.11%) mild anxiety and 14 (9.72%) no anxiety. After dental visit, only 28 (19.44%) had severe anxiety 22 (16.66%) had mild anxiety and 94 (63.88%) had no anxiety.
Conclusion: In our study, dental anxiety has reduced after a dental screening.

Assessment of maternal anxiety and evaluation of its correlation with child’s behaviour during first dental visit: An institutional study
Sauvik Galui
DR. R. Ahmed Dental College and Hospital, Kolkata, West Bengal, India

Presentation Type: Oral
Category: Original Research
Introduction: Identifying anxiety levels in mothers accompanying their children can help the clinician in designing the behavior management strategies for the child during dental procedure.
Aims: To assess the influence of pre-existing maternal anxiety on the behavior of children between the age of 3 to 6 years during their first dental visit.
Methods: Selected children, accompanied by their mother were selected for this study. Maternal anxiety level was assessed by a set of questionnaire. The child's behavior during dental procedure was assessed by Frankel behavior rating scale and correlated with maternal anxiety level. Mothers education, working status and socioeconomic status were also analyzed statistically in respect to maternal anxiety.
Results: Correlation detected between maternal anxiety and child's behaviour.
Conclusion: The study investigated children between age of 3 to 6 years. Younger and older children may have other possibilities which have to be evaluated in further studies.

Dental fear and anxiety prevalence in children and its co-relation with oral hygiene
Lipika Shivrain
Maharishi Markandeshwar deemed to be University, Ambala, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Childrens fear survey schedule “ dental subscale (CFSS-DS) is the reliable psychometric instrument to assess dental fear in children.
Aim: To assess the prevalence of dental fear and anxiety (DFA) in children using CFSS-DS and its relationship with oral hygiene.
Materials and Methods: A study sample of 400 of age 6-12 years school children were subjected to CFSS-DS questionnaire & DF-T, DF-S, DMFT, DMFS were taken.
Results: Dental fear score for injections (3.47±1.50), stranger touch you (2.34±1.34), somebody look at you (2.47±1.38) & mean score of CFSS-Ds for male (34.42±11.88), female (38.21±10.95) were statistically significant.
Conclusion: Results show prevalence of DFA in 6-12 years & co-relation of DFA to oral hygiene was not significant.

Herbal healing: Evaluation of antibacterial efficacy of vitex negundo extract as root canal irrigant against enterococcus faecalis – An in vitro study
Suruchi Gupta
Sharad Pawar Dental College, Wardha, Maharashtra, India

Presentation Type: Oral
Category: Original Research
The major drawbacks of chemical irrigants are its caustic effect on healthy tissues and the potential to cause allergy. Owing to the beneficial...
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**Effects of vitex negundo as available in the literature, in the present study it has been used as root canal irrigant.**

**Aim:** To evaluate the antibacterial efficacy of vitex negundo extract as root canal irrigant against enterococcus faecalis.

**Materials and Methods:** 40 premolars were randomly divided into 4 groups: vitex negundo extract: 100 mg/ml, CHX: 2%; naocl: 3%, saline. Sampling was performed using paper points from the root canal space lumen. E. faecalis count was recorded in the form of colony forming units before and after irrigation followed by statistical analysis.

**Results:** All irrigants significantly reduced E. faecalis counts in the root canal.

**Conclusion:** Vitex negundo extract has a potential to serve as an alternative herbal root canal irrigant in pediatric dentistry.

**Evaluation of microtensile bond strength between glass inomer cement and silver diamine fluoride-glass inomer cement treated carious primary dentin: An in vitro study**

**Sukka Bhavani**
Mamata Dental College, Khammam, Telangana, India

**Presentation Type:** Oral
**Category:** Original Research

**Aim:** To investigate the effect of silver diamine fluoride on microtensile bond strength between glass inomer cement and carious primary dentin and evaluate the mode of restorative failure.

**Methodology:** 20 carious primary molars were sectioned and randomly allocated to test and control groups which were treated with 38% SDF and deionized water respectively. Samples stored in artificial saliva for 14 days at 37 degree c, the dentin surfaces were conditioned and restored with gic. Specimens were placed for microtensile bond strength testing and results were subjected to statistical analysis. Mode of restoration failure was evaluated under stereomicroscope.

**Results:** The mean microtensile bond strength was not significant (P>0.05) in between test and control groups.

**Conclusion:** SDF does not adversely affect bond strength between GIC and carious primary dentin.

**Correlation between parental anxiety and their acceptance towards different behavior guidance techniques used in pediatric dental clinic**

**Monica Jha**
MM College of Dental Sciences and Research, Ambala, Haryana, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Gaining understanding of parental acceptance is the main objective of behaviour management researches.

**Aim:** To compare parental anxiety and their acceptance towards different behaviour guidance techniques used in pediatric dental clinic.

**Materials and Methods:** 70 parents dental fear was assessed using modified dental anxiety scale and presentation of six different behaviour guidance techniques were shown. Parents were asked to arrange various behaviour guidance techniques from most to least accepted techniques in different dental procedures in pediatric dental clinic.

**Results:** It was seen that the most preferred behaviour guidance technique was tell show do followed by positive reinforcement in all the techniques and the least preferred was physical restraints. Using spearmans correlation, there is no significant correlation between anxiety and most or least preferred behaviour guidance techniques.

**Conclusion:** A low parental acceptance for rigid behaviour guidance techniques was seen with no correlation of parental fear in present study.

**Evaluation of efficacy of an educational module in increasing the knowledge, attitude and practice about dental trauma among teachers of schools of South Delhi**

**Shabana Alam**
Inderprastha Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Dental trauma is considered a significant health problem due to its high prevalence. The teachers are more likely to be in contact with child soon after any injury, so a planned approach should be carried out to treat such injuries for which knowledge of emergency procedure is required.

**Aim and Objective:** To assess the efficacy of education module in increasing the knowledge, attitude and practice of school teacher regarding the management of dental trauma.

**Materials and Methods:** Questionnaire was distributed before and after providing education module among 1200 school teachers of south delhi and the results were tabulated and statistically analyzed.

**Results:** The mean pre score was 1.57±1.297, 0.68±0.840, 0.22±0.412 and mean post score was 5.23±0.785, 2.84±0.405, 0.88±0.329 of knowledge, attitude and practice among teachers which showed significant difference.

**Conclusion:** The present study indicates education module was efficient in increasing knowledge, attitude and practice about dental trauma among school teachers.

**Comparative evaluation of non-fluoridated milk and fluoridated milk on acidic dental plaque**

**Batchu Ramyasree Bhavya**
Mamata Dental College, Khammam, Telangana, India

**Presentation Type:** Oral
**Category:** Original Research

**Aim:** To investigate the effect of milk and fluoridated milk on acidic dental plaque.

**Methods:** Study was randomized cross over design. Ten subjects were asked to rinse for 2 min. With the following solutions: water, 10% sucrose, milk, non-fluoridated milk, fluoridated milk, 10% sucrose followed by water, 10% sucrose followed by fluoridated milk, 10% sucrose followed by non-fluoridated milk. The supra gingival plaque was collected before rinsing and every 5 min. After rinsing to measure the plaque ph.

**Results:** The results showed that rinsing with 10% sucrose caused acidic dental plaque. The maximum change in the plaque ph and the area under the curve in the group challenged with 10% sucrose followed by fluoridated milk were significantly lower than those in the group followed by non-fluoridated milk.

**Conclusion:** Challenging the acidic plaque with milk can raise the plaque ph and return the plaque ph to its resting period faster than a persons natural capacity to do so. Drinking fluoridated milk or milk after consuming sugary beverages might help in preventing dental caries.

**Knowledge attitude and awareness of antibiotics in dentistry among post graduate and under graduate dental students**

**Soumyashri Das**
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**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Most commonly prescribed drug in dental practice are antibiotics. But their indiscriminate use and overconsumption results in
bacterial resistant. Therefore, proper awareness and training should be
given to dental students on careful prescribing and use of antibiotics.
Aim: To assess knowledge attitude and awareness of post graduate and
under graduate dental students towards antibiotics in dentistry.
Methods: A questionnaire survey comprising of 14 questions was
conducted among 60 under graduate and 60 post graduate students.
Results: When comparisons were made between interns and MDS, it was
found that majority of dentist prescribes amoxicillin as first choice of
drug: 83.3% and 95.8% were aware of antibiotic resistance. When asked
about exact dosage of medication for children only 30.8% didn’t know
about it. 61.6% of interns, 81.6% MDS prescribed antibiotic according
to both weight and age.
Conclusion: Results highlights prevailing attitudes among dentists
prescribing antibiotic to children.

Remineralizing potential of pediatric dentifrices
available commercially
Rachna Mulani
DY Patil Dental College, Pune, Maharashtra, India

Aim: To evaluate the remineralizing potential of three commercially
available pediatric dentifrices on artificial carious lesions in primary teeth.
Objective: 1. To evaluate the remineralizing potential of three
cariously available pediatric dentifrices.
Methodology: Fifteen sound human primary teeth were coated with nail
varnish leaving a window of 2 mm– 4 mm on buccal surface and were
subjected to demineralization for a period of 96 h and then sectioned.
Out of the thirty sections obtained, were equally divided into three
groups with ten in each group: Group I (colgate spider man), Group
II (candy cop), Group III (kid50ent) subjected to remineralization
respectively for 10 days using pH cycling model. The sections were
then evaluated under the stereomicroscope.
Results: All the three dentifrices showed remineralization with artificial
carious lesions. Group II (candycop) with highest potential.

Parental knowledge, awareness and attitude toward
preventive and interceptive orthodontics: An
institutional study
Himadri Paul
DR. R. Ahmed Dental College and Hospital, Kolkata, West Bengal, India

A comparative study of salivary PH, buffer capacity,
total antioxidant capacity and ferritin levels in children
with thalassemia and healthy children
Vem Preethi
Manasa Dental College, Khammam, Telangana, India

Aim: The present study was to assess and compare salivary PH, buffer
capacity, total antioxidant capacity and ferritin levels in thalassemia
and healthy children.
Methodology: A total of 20 children were selected and allocated to two
groups: one group had children diagnosed with thalassemia (n=10) and
second group were healthy children (n=10). Salivary parameters like
PH, buffering capacity, total antioxidant capacity and ferritin levels
were measured using saliva check buffer kit, calorimeter and semi
autoanalyzer. Results were subjected to statistical analysis.
Results: Significant correlation was found in ferritin levels between
thalassemia children and healthy children.
Conclusion: Saliva can be considered as a diagnostic tool in the
evaluation of salivary parameters and ferritin levels as a non-invasive
procedure.

Put an end to the silver bullet staining: An in vitro study
Aiswarya Madhu
D.J College of Dental Sciences and Research, Modinagar, Uttar Pradesh,
India

Effect of sonic vibrations on photodynamic therapy: An
in vivo study
V Hridya
D.J College of Dental Sciences and Research, Modinagar, Uttar Pradesh,
India

Aim: Silver diamine fluoride (SDF) is a boon to the pediatric
dentist because of its non-invasive caries control property. But, the main
disadvantage of SDF is the blackish discolouration after its application.
Aim: To comparatively evaluate the efficacy in terms of colour change
and shear bond strength of SDF, SDF plus potassium iodide (KI) and
SDF plus bleaching gel.
Methods: 15 carious extracted teeth were taken for the evaluation
of colour change. SDF was taken as control and, SDF+KI and
SDF+carbamide peroxide bleaching gel were taken as experimental
groups. Lightening of colour after SDF application was evaluated by
cielab coordinates. Likewise, 15 non-carious extracted teeth were taken
for shear bond strength evaluation. The teeth were divided equally in
the similar group as that for colour change evaluation and were restored
with glass ionomer cement. Shear bond strength was evaluated using
universal testing machine.
Results: SDF+KI showed significantly better lightening of colour and
shear bond strength.
Conclusion: KI can be recommended to be used along with SDF to
produce acceptable lightening of colour.

Effect of sonic vibrations on photodynamic therapy: An
in vivo study
V Hridya
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India

Aim: To assess knowledge, attitude toward interceptive and
preventive orthodontics and practices related to orthodontic
treatment among the general people.
Materials and Methods: A cross-sectional study conducted among five
hundred parents who visited dental hospital of West Bengal.
Results: Although a notable percentage of parents have knowledge
about interceptive and preventive orthodontic treatment, further studies
still needed.
Conclusion: highlighting the need to augment orthodontic awareness
programs in both urban and rural areas.

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study groups: Group a- photodynamic therapy using methylene blue (MB), Group b- photodynamic therapy using methylene blue (MB) with ultrasonic activation, Group c (control)-ultrasonically activated 5.25% sodium hypochlorite (naclo). Microbial samples were collected at various stages. The mean percentage reduction of microbial count pre and post treatment were evaluated under polarised microscope. 

**Results:** Microbial reduction has been found statistically better in ultrasonically activated photodynamic therapy. 

**Conclusion:** Ultrasonic activation of photosensitizer in photodynamic therapy enhances its antibacterial activity.

**Is frontal sinus a reliable tool for growth evaluation?**

Priyank Sudani
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**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Growth evaluation plays significant role in accurate diagnosis and treatment planning of children. It was hypothesized that the unique pattern of pneumatization of frontal sinus as a craniofacial structure would influence skeletal growth pattern.  

**Aim:** To correlate frontal sinus index with anterior and posterior facial heights.  

**Methods:** 50 lateral cephalograms in children aged 8 to 15 years in Ahmedabad were assessed. Correlation between frontal sinus dimensions, anterior and posterior facial heights and skeletal jaw discrepancies were evaluated and data was statistically analyzed.  

**Results:** Very low positive correlation was found between sinus index and ANB angle (0.105) ; very low negative correlation was found between sinus index and SN-GOGN angle (-0.148); weak positive correlation was found between sinus index and lower anterior facial height (0.276), anterior facial height (0.214) and posterior facial height (0.308).  

**Conclusion:** Frontal sinus is not reliable as a sole criterion for growth evaluation.

**Knowledge, attitude and practices of mothers regarding oral hygiene in primary school children**

Ayushi Gupta
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**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Mothers play an important role of primary caregivers and should have good knowledge and information regarding oral health in order to implicate good oral habits in children.  

**Aim:** To assess the knowledge, attitude and practices of mothers regarding oral hygiene of primary school children.  

**Methods:** A cross sectional questionnaire survey consisting 20 questions will be carried among 400 mothers.  

**Results:** Total 400 mothers participated in the study. Knowledge about the importance of primary teeth, frequency, occasion and appropriate timing of tooth brushing along with amount of toothpaste used was found to be inadequate among the participants.  

**Conclusion:** Thus, it is essential that health care providers should impart good oral health knowledge to mothers for better childrens oral health future.

**Do smart, go fast – Rotary files in primary teeth**

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**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** In the last two decades, various innovations were evolved in pediatric endodontics and, introduction of rotary files for primary teeth was one of them.  

**Aims:** Comparative evaluation of instrumentation time and shaping ability of hand k, rotary KEDOS and protaper files in primary molars.  

**Methods:** A comparative study conducted, consisting 63 molar root canals equally divided in to 3 groups. Instrumentation done using three different file system. Instrumentation time was recorded using stop watch. Canal transportation, centering ability and taper of preparation were evaluated using CBCT.  

**Results:** Mean canal transportation were less in PROTAPER, and KEDOS as compared to k files at coronal, middle and apical third. In PROTAPER and KEDOS groups 85.71% root canal preparation showed good taper, but in k files the percentage was 66.67%. Mean instrumentation time showed as K files > PROTAPER > KEDOS.  

**Conclusion:** Instrumentation with rotary files increase quality of preparation with reduced time.

**SDF: A priori on process**

Meera Sojan  
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**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Silver diamine fluoride is a minimally invasive and low cost additive to traditional dental caries management strategies with caries arresting and preventive properties.  

**Aim:** To evaluate the parental acceptance of the application of SDF on their children ‘s primary teeth.  

**Methodology:** A descriptive cross sectional study was done on parents of children with deciduous dentition who had undergone conventional dental treatment before. Colored pictures of primary teeth before and after receiving SDF treatment was shown and a questionnaire based survey was designed to evaluate parental acceptance. Statistically analysis done using chi square and Wilcoxon signed rank test.  

**Results:** SDF staining on posterior teeth seems to be acceptable for 72.8% parents while only 50.4% of parents made same decision regarding anterior teeth. As the children behavior barriers increased, so did the parental level of acceptance.  

**Conclusion:** Parental acceptance of Sdf is more on posterior teeth especially for uncooperative children.

**Comparative evaluation of radiopacity of three obturating materials used in primary teeth**

Kripalani Manisha Gopaldas  
College of Dental Sciences and Research Centre, Ahmedabad, Gujarat, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** An ideal root canal filling material should be radiopaque enough to allow for distinction with surrounding anatomic structures and facilitate the detection of voids.  

**Aim:** To evaluate and compare the radiopacity of zinc oxide eugenol, metapex and endoflas using conventional radiographic technique.  

**Methods:** Wax molds with 1 mm thickness and 7 mm internal diameter were filled with selected obturating materials. 3 teeth selected and obturated. An aluminum step wedge with 10 incremental steps of 1 mm thickness was constructed and used as reference. The ISO and American national standards institute recommends use of >=98% pure aluminum step wedge as a reference. Occlusal radiograph of all specimens was taken and analyzed using histogram function in adobe photoshop software, version 7.0.1.  

**Results:** Mean radiopacity values are: endoflas: 172.6, zinc oxide eugenol: 163.7, metapex: 160.7.  

**Discussion:**
Abstracts

Investigating different coping strategies among anxious children
Kathiria Hitakshi Prakashbhai
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Presentation Type: Oral
Category: Original Research
Introduction: Dental anxiety is a phenomenon with serious negative oral health whose widespread psychosocial effects have a strong association with avoidance of dental care. It is thus important to examine how children manage to cope with stressful visits to the pedodontist. The variations in child behaviour should be considered so that their coping styles can be managed professionally.
Aim: To investigate children’s dental coping strategies by using self-report questionnaire tool.
Methods: Anxiety level of 100 children of age 8 to 12 years was measured using modified child dental anxiety scale (faces version). They were asked to imagine a certain situation and how they would react to it. Appropriate strategies were ticked in the questionnaire. The data was collected and analysed.
Results: Children with moderate to high anxiety preferred monitoring coping style than blunting.
Conclusion: monitoring - blunting coping style is effective in reducing child’s anxiety.

A comparative evaluation of kiodent mouthwash and Coriandrum sativum mouthwash in reducing Streptococcus mutans count: A randomized controlled study
Badar Omera Fatima
AME’S Dental College and Hospital, Raichur, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Coriandrum sativum is a medicinal plant, belonging to the family umbelliferae & its seed oil extracts possess promising antibacterial and antioxidative properties.
Aim: To assess the antibacterial efficacy of coriander seed oil mouthwash and kiodent mouthwash against Streptococcus mutans.
Methods: The trial design involves 15 days which included 15 healthy children in each group namely Group 1 (kiodent mouthwash), Group 2 (coriander mouthwash) and Group 3 (placebo) aged between 6-8 years. The CFU/ml of coriander mouthwash and kiodent mouthwash was determined by serial dilution method and calculated using manual colony counter. Statistical analysis was performed with one way ANOVA and t-test.
Results: Coriander mouthwash showed equivalent and significant reduction in cfu/ml when compared to kiodent mouthwash (p

Evaluation of shear bond strength between composite resin, vitreobond and theracal using two different adhesive system: An in vitro study
Lilavanti Vaghela
Karnavati School of Dentistry, Gandhinagar, Gujarat, India

Presentation Type: Oral
Category: Original Research
Introduction: The root canal filling material studied met the minimum radiopacity standard recommended by ISO and ANSI/ADA with ENDOTAN being the most radiopaque.
Methods: Forty customized rectangular acrylic blocks containing 4×4×4 mm hole were divided into two groups and filled with theracal and vitreobond. Each group were further divided into two subgroups: total and self-etch bonding system were applied on samples followed by placement of composite and light cured. Shear bond strength was measured using universal testing machine.
Results: Statistical significance was seen between two different bonding system using one way anova, tukey post hoc test (p < 0.05).
Conclusion: Adhesive system plays important role in achieving proper seal in vital pulp therapy as compared to pulp capping agent.

Conscious sedation: A cake walk or perplexing ordeal
Ripin Garewal
National Dental College and Hospital, Dera Bassi, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Conscious sedation is used in a standard way in dentistry and medicine. Professional use and administration of the same is a tried and tested method to managing patients anxiety for dental procedures.
Aim: Knowledge and aptitude of dentists regarding knowledge and use of conscious sedation to further enhance skills.
Methodology: An online questionnaire form was constructed keeping in mind various parameters on deployment and use of conscious sedation as a bounty to clinical practise. The national level research survey was conducted over a span of 10 months with participation of dentists from all specialities of dentistry.
Results: Results showed keen interest of dentists in use of conscious sedation as a fringe benefit, however remain compromised with limited resources and legal issues.
Conclusion: Use of conscious sedation injudiciously like in western countries, as a desirable treatment honorarium, after enhanced training should be considered on priority.

LSTR: A pulpectomy panacea?
Amandeep
H.P. Government Dental College and Hospital, Shimla, Himachal Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Pulpal infections are very common in pediatric population, furthermore pulp therapy is an integral part of pediatric dentist’s plethora. One of which is lesion sterilization and tissue repair.
Aim: To comparatively evaluate clinical and radiographic success rates of 3 mixtatin, modified 3 mix-mp paste and metapex in primary molars requiring pulpectomy.
Methodology: Sixty-six teeth were taken among 52 patients and randomly divided into three groups: Group I (3 mixtatin), Group II (modified 3 mix-mp) and Group III (metapex). Clinical and radiographic evaluation was done at 6, 12 months respectively.
Results: Clinical success at 6 and 12 months for Group I 86.4%, 77.3%, Group II 95.7%, 95.7% and Group III 100%, 95.2%, whereas radiographically Group I 81.8%, 77.3%, Group II 87.0%, 87.0% and Group III 90.5%, 76.2% respectively.
Conclusion: LSTR is a viable treatment option with possible substitution of conventional pulpectomy in teeth with poor prognosis.

Full coverage restorations for severe MIH affected first permanent molars: Is there hope? A randomized clinical trial

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Presentation Type: Oral  
Category: Original Research

The MIH affected teeth with severe defects may require extensive fillings, inevitably increasing the risk of failure. These teeth with breakdown, often require treatment in the form of onlays or full coverage restorations.

**Aim:** To evaluate and compare the clinical performance of zirconia, lithium disilicate and cast metal as a full coverage restorations in MIH affected FPMS.

**Methods:** 60 MIH affected FPMS (n=20) requiring full coverage restorations were selected from children aged 8 to 15 years and randomly allocated in three groups using block randomization. After removal of the defect, composite build up was done followed by tooth preparation and restorations were fabricated.

**Results:** After 24 months, all the restorations had comparable results with no statistically difference between three groups (P=1.000).

**Conclusion:** ALL restorations appear to be promising treatment options for management of mih affected molars and longer follow up are required to reach a more conclusive results.

Gauging impact in the art of combat

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Presentation Type: Oral  
Category: Original Research

**Introduction:** With the increased popularity of learning martial arts, a dentist has a prime role in the prevention of orofacial sports injuries.

**Aim:** To evaluate the awareness and occurrence of facial and dental injuries in children training in martial arts and check for the prevalence of injuries according to the rank.

**Methods:** 246 children between 8-16 years practising martial arts filled out a questionnaire that assessed the occurrence of facial and dental injuries and gauged the awareness related to preventing injuries.

**Results:** 25.2% of the population had experienced a facial injury, 10.9% a soft injury, 8.9% tooth-fracture, 8.1% avulsion while practising. 74.03% were aware about mouthguards; 1.57% used them in regular training. A positive correlation was seen between an increase in incidence of injuries with increase in rank.

**Conclusion:** Since the awareness regarding prevention of orofacial injuries is poor, necessary measures should be undertaken.

Lasers as a valid alternative to conventional treatment protocols in pediatric dentistry

Rohini Dua  
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Presentation Type: Oral  
Category: Original Research

**Introduction:** After the advent of advanced lasers, this technology has been beneficial in various treatment techniques in paediatric dentistry. It is an alternative that complements and substitutes other techniques.

**Aim:** The current paper aims to put forward the effectiveness of lasers in root canal disinfection and pulpotomy.

**Methodology:** Root canal disinfection- comparison of laser with sodium hypochlorite and mtd pulpotomy “ comparison of laser with formocresol, ferric sulphate and PRF as pulpotomy agents.

**Results:** Laser was found to be more effective when compared to other techniques in canal disinfection as well as pulpotomy.

**Conclusion:** The present paper suggests the use of lasers as an effective alternative to various techniques used for canal disinfection and pulpotomy.

The impact of virtual reality distraction versus conventional distraction on pain during the administration of IAN block in 5-8-year-old children: A randomized cross-over clinical trial

Priya Chandrashekhar Somvanshi  
S.M.B.T. Dental College and Hospital, Sangamner, Maharashtra, India

Presentation Type: Oral  
Category: Original Research

**Introduction:** Pain & anxiety during dental treatment has been major concern for dentists as it can have negative impact on the outcome of the dental treatment and also on the patients quality of life.

**Aim:** To compare the effect of VR and conventional distraction techniques, in the management of 5-8-year-old children during IAN block (IANB).

**Methodology:** 40 children aged 5-8 years, who required IANB were selected. children were randomly divided into 2 groups; 50% were subjected to VR model and 50% were subjected to conventional distraction technique and then cross-over was done. All of the children were assessed by using: wong-baker faces pain rating scale and flack behavior rating scale.

**Results:** There was significant difference in scores between the groups.

**Conclusion:** VR distraction technique was more effective in reducing pain and anxiety in pediatric patient as compared to conventional distraction technique.

An evaluation and comparison of smear layer removal efficacy of three different irrigation regimes: A stereomicroscopic and scanning electron microscopic study

Roshni Bhatt  
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Presentation Type: Oral  
Category: Original Research

**Introduction:** Irrigation plays a pivotal role in pulp therapy owing to its flushing action and removal of smear layer which if present prevents penetration of medicaments and sealers into dentinal tubules.

**Aim:** Comparison and evaluation of smear layer removal efficacy of three different commercially available irrigating solutions.

**Methods:** 30 human single rooted were decoronated and randomly divided into 3 groups (Group I- NAOCIL + EDTA, Group II-Chloraxid gel+ EDTA, Group III- NAOCIL+ TWEEN KLEEN). After recommended biomechanical preparation and irrigation, teeth were stained and analysed under stereomicroscope for dye penetration and SEM for surface changes.

**Results:** Statistically significant result were seen with highest smear layer removal in Group I (64.73) and lowest being Group II (42.41) 

**Conclusion:** Though newer irrigating materials show good smear layer removal in middle third, but in apical third the sequential flushing of materials may have a significant role.

Comparative evaluation of compressive strength of three different glass ionomer cements

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Presentation Type: Oral  
Category: Original Research

**Introduction:** Glass ionomer cements emerged as a restorative material since 1970. They are esthetically more pleasing but their use in dentistry as a restorative material in stress bearing area is limited due to poor mechanical properties, such as low fracture strength, toughness, and
wear resistance. Hence newer modifications of GIC were introduced to overcome the disadvantage.

**Aim:** To evaluate and compare the compressive strength of equiafore, zirconomer improved and Fuji II LC stored in artificial saliva.

**Methods:** A total of 45 enclosed specimen with diameter of 4 mm and 6 mm height of each restorative cement were prepared according to ISO specification. Then each specimen were subjected to thermocycling and immersed in artificial saliva for 24 hrs further under universal testing machine compressive strength were evaluated.

**Results:** Zirconomer improved exhibited highest compressive strength than other two restorative materials.

**Conclusion:** Hence, zirconomer improved can be use as better promising restorative material in stress bearing areas.

**Awareness and practices regarding medico-legal aspects amongst pediatric dental specialists in Gujarat**

Darshan Kumar Jethva
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**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Over the years dental practice has been changed due to parental relationship between dentists and the patients. There has been increase in the number of patients challenging the dentist’s authority over treatment planning and consent issues in the past years. This leads to various medicolegal issues. This survey is carried out to find current awareness and mode of practice against medicolegal issues.

**Aim:** To assess the awareness and practices for medicolegal issues among pediatric dentists in Gujarat.

**Methods:** This was a cross sectional study. A self constructed online survey questionnaire of 20 questions was designed. A total of 112 doctors responded to the questionnaire.

**Results:** Awareness regarding prevalent medicolegal issues was 88.39% but regarding CPA and measures to tackle CPA legally was only 22.32% overall.

**Conclusion:** A good amount of knowledge found amongst doctors but to create substantial changes to management of CPA, more educational programs will surely benefit.

**Comparison of salivary antioxidant capacity of children with and without severe early childhood caries before and after complete dental rehabilitation**

Mebin George Mathew
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**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Early childhood caries (ECC) can be detected without the use of a biomarker, however, the impact of the treatment of ECC on the antioxidant capacity of saliva remains relatively unexplored.

**Aims:** To evaluate salivary antioxidant capacity (SAC) in children with and without ECC.

**Methods:** Salivary samples were collected from 60 children before treatment and 3 months after treatment. SAC was assessed by estimating the enzymatic activity of superoxide dismutase.

**Results:** Median SAC was 0.16±0.043u/mg in the controls compared to 0.49±0.013u/m in the ECC group before treatment. 3 months posttreatment the median sac was 0.19±0.049u/mg in the ECC group compared 0.21±0.049u/mg in the controls. a statistically significant difference was seen in the test group before and after treatment.

**Awareness about ankyloglossia among pediatric dental professionals in India: A cross sectional questionnaire survey**

Haripriya Krishnakumar
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**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** The tongue is an important oral structure that affects speech, position of teeth, periodontal tissue, nutrition, swallowing, nursing and certain social activities. Ankyloglossia is a congenital anomaly characterized by an abnormally short, thick lingual frenulum which affects movement of tongue and its presence in children poses a diagnostic challenge for dentists.

**Aim:** To study the awareness of ankyloglossia among pediatric dental professionals in India.

**Methods:** This cross sectional study is conducted by assessing responses to the questions pertaining to ankyloglossia among pediatric dental professionals in India. All participants were given a questionnaire where they had to mention their qualifications and clinical experience, apart from answering the questions.

**Results:** The study is still undergoing.

**Conclusion:** To ensure better and quality healthcare, it is essential for all dental practitioners to be aware about ankyloglossia.

**Comparison of impact of oral hygiene instructions given using sign language and customized oral health education skit video on oral hygiene status of deaf and mute children of Wardha district**

Meghana Ajay Deshpande
Sharad Pawar Dental College, Wardha, Maharashtra, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** The children with special needs have more limitations in oral hygiene performance due to their potential motor, sensory and intellectual disabilities and so are more prone to have compromised oral health.

**Aim:** To compare the impact of oral hygiene instructions given using sign language and customized oral health education skit video on oral hygiene status of deaf and mute children of Wardha district.

**Methods:** 68 deaf and mute children, within age group of 6-13 years, were divided into 2 educational intervention groups: Sign language and video modelling. Baseline GI-S and PI-S indices were recorded. Based on the group assigned, oral hygiene instructions were given on a daily basis. Reassessment was done after 1 month, followed by statistical analysis.

**Results:** There was a significant mean reduction in oral hygiene, gingival, and plaque scores in all the children.

**Conclusion:** Educational intervention using standardized sign language can be suggested in chi.

**Acceptance among parents regarding pharmacological behavior techniques practiced in pediatric dentistry**

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**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** The most challenging part of pedodontics, is to manage the dental anxiety of both child and parent. To improve the child’s behavior, dentists are usually using behavior management techniques. Sedation is a pharmacological behavior management technique to eliminate anxiety.

**Aim:** The aim is to analyze the acceptance of sedative techniques among parents.
Methods: 30 parents of their children who reported for treatment in the department of pedodontics were selected. The sedative technique was explained to the parents verbally. A questionnaire was given to them to get the acceptance of sedative techniques for their children’s treatment.

Results: Acceptance among parents for oral sedation: 62%, conscious: 23%, general anesthesia: 15%.

Conclusion: Most of the parents understand the need for sedative techniques. An adequate explanation of the procedures and the safety measures will substantiate the pharmacological management to the parents. Thus fulfilling parental expectations and better quality of treatment.

Evaluation of defects in a paediatric endodontic rotary file system following its in vivo use

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Presentation Type: Oral
Category: Original Research

Introduction: Rotary instruments have been widely used in endodontics; their use in paediatric dentistry is an emerging practice. With the use of rotary instruments, the procedural time has shown to be decreased. Most common procedural error is fracture of rotary ni-ti files during clinical use.

Aim: To evaluate the defects in paediatric rotary file system - PRO AF baby gold file after each clinical use.

Methods: In this study 1 file (b5, for maxillary anteriors) was used for 5 teeth. After every use, the file was examined under stereomicroscope at 20× magnification to see the defects in the file and graded according to sattapan b et al’s classification of defects of rotary instruments.

Results and Conclusion: From the study of 3 files, 30% of files showed increased occluding edge deformity (grade 5) and we observed that clinical efficiency to be reduced after 3rd use.

Probiotics: The new preventive measure

Pooja Pani
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Presentation Type: Oral
Category: Original Research

Introduction: Early childhood caries (ECC) is a global problem affecting children, their families and dental therapists as restorative treatments are unsuccessful due to the recurrence of caries. In addition, due to lack of cooperation among children, it is very difficult to manage compliance.

Aim: To study the effect of chewable probiotic tablets on the growth and colonization of cariogenic bacteria (streptococcus mutans) in children with mixed dentition.

Materials and Methods: The children were given chewable probiotic tablets and were asked to chew one tablet per day. At the end of a month, saliva was collected and streptococcus mutans count was seen.

Results: There was a significant decrease in count of streptococcus mutans from baseline to 1st month, 3 months and 6 months.

Conclusion: Probiotics prove to be an important way to prevent dental caries.

Evaluation of shear bond strength in the composite-dentin interface in primary teeth treated with modified phosphoric acid etchants: An in-vitro study

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Presentation Type: Oral
Category: Original Research

Introduction: Adhesive restorations deteriorate at resin-dentin interface because of collagen degeneration. Addition of MMP inhibitors proved to improve the bond durability.

Aim: To evaluate shear bond strength in composite-dentin interface in primary teeth treated with modified phosphoric acid etchants.

Materials and Methods: Forty deciduous molars mounted in acrylic blocks with dentin surface exposed were allocated into 4 groups. In control group, 37% phosphoric acid and in study groups, 10% phosphoric acid modified by adding MMP inhibitors i.e. grape seed extract, EDTA and tannic acid were used after etching, was followed by bonding and composite build up, teeth were tested for shear bond strength using universal testing machine.

Results: Higher bond strength was found in groups where etchant was modified with mmp inhibitors.

Conclusion: MMP inhibitors added to etchant can play a significant role in improving bond strength and longevity of adhesive restorations in oral cavity.

Parents perception and satisfaction level with pediatric dental care

Kalpana
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Presentation Type: Oral
Category: Original Research

Introduction: Satisfaction is one of the components of psychological science. Patient satisfaction is a useful measure that evaluates the quality of care and the doctor, patients and patient relationship.

Aim: To evaluate the level of parents perception and satisfaction with pediatric dental care provided by postgraduate dental students to explore the factors associated with various parents demographics.

Materials and Methods: A cross-sectional study was conducted among parents (n = 126) whose children received dental care in department of pediatric and preventive dentistry of HP Govt. Dental college and hospital Shimla, Himachal Pradesh.

Results: Showed that 60.3% parents agreed that for which they reported to dental college is quality of treatment given. 92.1% parents said that dental clinic setup is up to date. And 35.7% of the parents said that before being seen they had to wait for a long time in the waiting area.

Psychological impact of early childhood caries in children

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Presentation Type: Oral
Category: Original Research

Introduction: Early childhood caries is a prevalent childhood disease. The aftermath of caries is devastating to the teeth. Children of present era are conscious about their appearance. Compromised aesthetic leads to peers mocking and ridicule them, which can affect the psychology as the child is maturing physically and emotionally.


Methods: Total of 120 children (4-6 years), divided into two groups: Early childhood caries and caries free, were asked to fill the multiple choice questionnaire.

Results: Children with early childhood caries complains of toothache (76.6%), problems in eating (68.3%), ashamed to smile (40.0%), missed school (26.6%), stopped playing with others (13.3%), teased by friends (18.3%).

Conclusion: Early childhood caries was found to have a negative impact on child psychology. There is a need for more education and awareness on the child oral health care.
Evaluation of occlusal characteristics and spacing in primary dentition
Annita Thakur
H.P. Government Dental College and Hospital, Shimla, Himachal Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Occlusal characteristics and spacing in primary teeth show different morphological features among different populations and races.
Aim: To assess and compare the occlusal characteristics and spacing in primary dentition among 3-6-year-old children of Shimla District of Himachal Pradesh.
Materials and Methods: The study included 226 school-going children. The primary molar relation, canine relation, overjet, and overbite were assessed using Foster and Hamilton criteria. Spacing conditions were registered according to kisling and Krebs criteria.
Results: The data was analysed and chi square test was used to compare the measured variables. There was statistical significant difference (P value=0.05) in the primary molar relation among male and females. Others characteristics were not found to be statistically significant.
Conclusion: The study population has fewer deviations from normal occlusion which indicates decreased tendency for malocclusion in primary dentition. However, further longitudinal studies are necessary.

Functional orthopedics: A combination therapy
Ramesh R
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Presentation Type: Oral
Category: Original Research
Introduction: Children are in a dynamic state of growth. Abnormal musculoskeletal development is the fundamental cause of malocclusion. As a pediatrician we treat child in the most golden period of their growth spur. A functional orthopedic approach of combining twin block with headgear help in controlling the uncertain treatment response that is associated with purely functional techniques and will reduce the intensity of developing malocclusion thereby reducing the amount of fixed orthodontic therapy and future surgical intervention.
Case Report: In this case demonstrates the use of twin block with high pull headgear on a eleven year old male patient who reported with forwardly placed upper front teeth with angles class II malocclusion, prognathic maxilla and retrognathic mandible. The patient received a functional orthopedic appliance which involved a twin block and headgear appliance which utilizes both functional and orthopedic correction of malocclusion as both skeletal and dental components were involved.

Knowledge and attitude of dental undergraduates on early childhood oral health
Oma Gyati
Maharishi Markandeshwar University, Ambala, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Early childhood caries is one of the major oral health problems affecting infants and children which can have an impact on the psychological and social well-being of a child. Dental students attitude and knowledge on early childhood oral health could greatly contribute in improving infants oral health.
Aim: To assess the knowledge and attitude of dental undergraduates on early childhood oral health.
Methods: A questionnaire consisting of 15 questions were distributed among 200 dental undergraduates. The participants consisted of 100 interns and 100 final year students.
Results: Around 85% of final year dental students and 68% interns responded correctly to when a child should have the first dental visit. Regarding fluoride applications, interns demonstrated more knowledge. Conclusion: Overall, the final year students had better knowledge than interns regarding infant oral health care.

Early childhood caries and associated risk factors in preschool children: A cross-sectional study
Saranya V Nair
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Presentation Type: Oral
Category: Original Research
Introduction: Early childhood caries (ECC) is a severe form of dental caries in preschool children, which is associated with several determinants.
Aim: To investigate the prevalence of ECC and assess the associated risk factors among children aged 3-5 years in north Bengaluru.
Methodology: The study involved 1050 children selected from preschools in north Bengaluru. Information regarding risk factors was obtained from the primary caregivers through a structured questionnaire. Clinical examination was performed by a trained dental professional using who criteria to record dental caries.
Results: The prevalence of ECC among preschool children was 28.47%. Children whose primary caregivers had no schooling and those who belonged to low-income group showed higher caries. Caries was high among those who were bottle-fed for longer duration, those falling asleep with bottle and those fed with additional sugar in milk.
Conclusion: There was significant association of ECC with the various factors assessed.

Effect of a preventive regime on oral hygiene practices of Type-1 diabetes mellitus patients
Vishwendra Singh, Gauba, Dayal, Verma
Government Medical College and Hospital, Chandigarh, India

Presentation Type: Oral
Category: Original Research
Introduction: Poorly controlled type 1 diabetic children exhibit poor oral health status as compared to the general population. However, no preventive protocol exists for attending to their oral health needs.
Aim: To evaluate the effect of an oral health preventive regime on oral hygiene practices and gingival status of type 1 diabetes mellitus patients over a period of 6 months.
Methodology: 50 type 1 diabetes mellitus children, aged 6-12 years, were divided into two groups and received similar oral hygiene instructions at baseline. Children in Group I additionally received a comprehensive oral health preventive protocol.
Results: The intervention group showed favorable improvements in the oral hygiene method taught, correct brushing frequency, brushing method, use of fluoridated toothpaste and their plaque and gingival indices.
Conclusion: The preventive protocol used in the present study showed a statistically significant improvement in the oral hygiene practices and gingival status of type 1 diabetes mellitus patients.

Scap-unveiling the regenerative potential
Aarathi J Prakash
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Abstracts

Presentation Type: Oral
Category: Original Research
Introduction: Regenerative endodontics is an emerging protocol in management of necrotic immature permanent teeth (NIPT).
Aim: To compare and evaluate the regenerative potential of blood clot and PRF in NIPT based on the revised AAE clinical considerations for regenerative endodontics-2016.
Materials and Methods: 20 patients (7-12 yrs) with NIPT were included, the irrigation and disinfection was done using AAE protocol. Teeth were randomly categorized into PRF scaffolding and conventional bleeding technique. The cases were followed up for 1 month, 3 months and 6 months.
Results: at 6 months there was no significant difference between the groups in terms of clinical healing and periapical healing, though statistical difference was seen in PRF group for apical closure at 6 months.
Conclusion: PRF scaffold can be used with AAE irrigation and disinfection protocol as it induces the regenerative potential of stem cells at APEX, further randomized control trials are needed to support the recommendation.

Behavioral determinants of infant oral hygiene practices in rural area around Nagpur region
Gagandeep Lamba
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Presentation Type: Oral
Category: Original Research
Introduction: Mothers play a key role in preventive strategies for an improved oral health of infants. Although parents are aware of oral hygiene practices but are unable to follow due to barriers.
Aims: To identify parents motivation and barriers for infant oral hygiene practices and to discover methods to encourage positive health behavior from early childhood.
Methods: Interviews were conducted with parents about infant oral hygiene practices and their experiences.
Results: More than 60% of the parents reported that they were aware of cleaning gum pads and newly erupted primary teeth, but could not follow the practices due to various barriers. On the contrary, few parents performed cleaning of gumpads with high self-efficacy.
Conclusion: The findings support an integrative framework in which barriers and support for parents’ to maintain infant oral hygiene practices are multiple and vary among individuals.

Oral health condition and complication in pediatric malignant patients
Chiramchetti Meghana
MNR Dental College, Sangareddy, Telangana, India

Presentation Type: Oral
Category: Original Research
Introduction: Oral cavity is frequently affected with complications from cancer or secondary cancer treatment. 1.6 to 4.8% of all cancers in India are diagnosed in children below 15 yrs of age.
Aim: To assess the oral health condition and complication in pediatric cancer patients undergoing chemotherapy.
Methods: 100 subjects of age group 1-15 yrs diagnosed with cancer and undergoing chemotherapy were examined. DMFT/DEFT was recorded.
Results: The most commonly encountered malignancy in the subjects was acute lymphoblastic leukemia (all) with oral complications ranging from mucositis (91%), gingivitis (38%), xerostomia (20%), herpes (5%), candidiasis (3%), to TMJ pain (2%). 14% of the subjects consulted from mucositis (91%), gingivitis (38%), xerostomia (20%), herpes (5%), candidiasis (3%), to TMJ pain (2%). 14% of the subjects consulted for acute lymphoblastic leukemia (all) with oral complications ranging from mucositis (91%), gingivitis (38%), xerostomia (20%), herpes (5%), candidiasis (3%), to TMJ pain (2%).
Conclusion: Oral care is of critical importance in maintaining overall well-being throughout treatment which is achieved by close liaison between oncologist and pediatric dentist to minimize the discomfort and increase treatment compliance.

Needle stick injuries among dental interns and postgraduates: Risk factors and prevention
Snehasish Basu
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Presentation Type: Oral
Category: Original Research
Introduction: Occupational injuries exposing healthcare professionals to blood pathogens continue to be an important public health concern especially for dentists who are at increased risk to exposure of hepatitis B, C and HIV.
Aims: This study was done to evaluate the risk factors of needle stick injuries sustained by interns and postgraduates.
Methods: This study is designed to evaluate the incidents reported over a period of 6 months. Information was obtained through questionnaire. Factors including dental departments, study year, when the incident took place, during treatment, clearance, recapping or disposal are recorded and analyzed statistically.
Results: This report showed interns are at highest risk of NSIS. Oral surgery department reported maximum incidences. Left handed students were most frequently affected. Disposal of needle presented another factor of injuries.
Conclusion: Less NSIS occur while using safety syringes. Non-recapping policy with immediate disposal prevents almost all NSIS.

Comparative evaluation of microleakage of stainless steel custom made bands cemented with different luting cements: An in vitro study
Arwah Bashir
DJ College of Dental Sciences and Research, Modinagar, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: The luting cements have been used to retain ss crowns,bands,space maintainers etc. to tooth structure. Microleakage being one of the reason of failure of restoration, resulting increased incidence of cervical caries has drawn attention of clinicians. Therefore, understanding properties of luting cements to ensure long term clinical success of cemented restorations is necessary.
Aim: To evaluate microleakage of stainless steel bands cemented with different luting cements.
Methods: 30 human molars were randomly divided into 3 groups of 10 each. In each group SS bands were adapted and cemented with HY bond GI CX-Smart, conventional GIC, Zinc phosphate cement respectively. Samples underwent thermocycling and stereomicroscopic analysis was done to evaluate microleakage of each group.
Results: Microleakage was found greatest in Group 3, followed by Group 2, and least in Group 1.
Conclusion: Microleakage of SS bands cemented with improved HY bond CX smart was proved to be more efficacious than conventional cements.

Parental preferences regarding their presence during childs dental treatment in dental operatory
Pooja Goel
Swami Devi Dyal Hospital and Dental College, Barwala, Panchkula, Haryana, India

Presentation Type: Oral
Category: Original Research
Abstracts

Introduction: Parenting strategies are changing which resulted in marked increase in parental preferences to be present in the dental operatory. Nowadays, concerned parents insists more on staying with their child to avoid possible emotional distress.

Aim: To evaluate parental preferences regarding their presence in the operatory during their child’s dental procedures.

Methods: 300 parents of children in age group of 5-13 years were interviewed regarding their preferences towards their presence in dental operatory during various dental procedures.

Results: 43% parents wanted to be present during examination, 35% during fillings, 58% during endodontic procedures; 37% during stainless steel crowns and oral prophylaxis but maximum parents 59% wanted to be present inside the operatory if any minor oral surgical procedure was being carried out on their children.

Conclusion: Most of the parents preferred to remain with their child during various dental procedures. So, parent’s active participation should be considered by the dentists.

A comparative evaluation of compressive strength of different pit and fissure sealants: An in vitro study

Layeeque Ahmad
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Presentation Type: Oral
Category: Original Research

Introduction: Sealing pit and fissures of occlusal surfaces is one of the most effective dental caries preventive measures, but to do so it needs to have biocompatibility, esthetic appeal and improved mechanical properties like compressive strength, tensile strength and shear bond strength etc.

Aims: To compare and evaluate the compressive strength of different pit and fissure sealants.

Methods: 10 standardized restorative material pellets were made from each experimental material namely: CPP-ACP based sealant, GIC based sealant and unfilled resin based sealant which made the sample size to be 30. Thermocycling was done to mimic the oral conditions. compressive strength was evaluated using universal testing machine.

Results: The compressive strength of GIC based sealant was found to be statistically higher when compared with CPP-ACP based sealant and unfilled resin based sealant.

Conclusion: Hence GIC based sealant can be recommended as a stronger and effective pit and fissure sealant in comparison to CPP-ACP and unfilled resin based sealant.

Evaluation of biodentine pulpotomy in children with cariously exposed symptomatic vital mature permanent teeth: A pilot study

Archana
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Presentation Type: Oral
Category: Original Research

Introduction: The dental pulp is an integral component of teeth. Thus, to maintain the vitality of tooth, pulpotomy with bioactive dentine substitute- biodentine, can be used as viable treatment option for cariously exposed symptomatic vital mature permanent teeth in children.

Aim: To observe clinical and radiographic outcome of biodentine pulpotomy over a period 6 months in symptomatic vital mature permanent teeth with carious exposure.

Methods: 17 vital mature permanent teeth with cariously exposed pulp, no periapical pathology and intact lamina dura were included. Conventional pulpotomy was done, and after achieving hemostasis within 5 minutes, biodentine was placed. Clinical and radiographic follow up was done at specific time intervals.

Results: 100% clinical success was observed at 1, 3, 6 months and 100% radiographic success was observed at 6 months time interval.

Conclusion: Biodentine pulpotomy can be considered as expedient option for treating cariously exposed symptomatic vital mature permanent teeth.

Comparison of virtual reality distraction method and acupressure point method for managing 5–8 year old children in the dental operatory

P Radhika
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Presentation Type: Oral
Category: Original Research

Introduction: Dental anxiety is a major challenge for a pediatric dentist. The negative behavior in a child can lead to poor patient corporation and later avoidance of further treatment. Hence, better management of such situation can improve the quality of treatment.

Aim: To compare and evaluate the efficiency of virtual distraction and acupressure technique in anxiety management of children.

Methods: 40 children were between 5-8 years were randomly selected from outpatient facility in our department and divided into two groups, Group a and Group b. MCDAS score and pulse rate of both group were recorded. Subsequently Group a were exposed to virtual distraction and Group b to acupressure mode of distraction. The needed dental procedures were then carried out. Post treatment MCDAS and pulse rate were recorded.

Results: Study is still undergoing.

Conclusion: Advent of recent management techniques will thus help us in providing quality treatment.

ECC: Importance of local cultural factors in risk assessment

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Presentation Type: Oral
Category: Original Research

Introduction: Early childhood caries refers to caries affecting primary teeth in preschool children and has been of major concern in the field of child care. Risk factors may differ in different localities according to culture and food habits. It is necessary to develop targeted interventions according to these factors to prevent the number of children requiring emergency dental care at an early age.

Aims: To determine the prevalence of ECC among children of a particular locality based on local cultural factors.

Methods: 600 children from different preschools and anganwadis were included, whose parents were asked to fill a prepared dental questionnaire in local language. The results were analysed and statistically analysed.

Results: Male children had higher prevalence of ECC compared to females; it had a statistically significant association with age.

Conclusion: Probable risk indicators for ECC should include local factors of the study population.

Maternal human cytomegalovirus seropositivity and its implications on their off springs

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Presentation Type: Oral
Category: Original Research
Abstracts

Introduction: Human cytomegalovirus (HCMV) is the most common viral infection affecting mothers with a risk for audiological, neurological and developmental sequelae in their offsprings.

Aim: To evaluate the risk of occurrence of autism & hearing and speech disability through vertical transmission of HCMV.

Methods: A total of 48 children of 4-14 years depending on disability were divided into three groups (2 study and 1 control group) with their mothers as subgroups. Blood samples were collected and tested for HCMV IGG and IGM antibodies by ELISA test and the data was statistically analyzed.

Results: In both study groups, a statistical significance was observed for HCMV igg antibodies and for IGM, no significance was found. In control group, no significance was found for both HCMV igg and IGM antibodies.

Conclusion: Vertical transmission of HCMV could be a potential etiological factor for autism, speech and hearing disorders.

Novel animated visual facial pain/anxiety rating scale: Its reliability and validity in assessing dental pain/anxiety in children

Atiya Nasreen
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Presentation Type: Oral
Category: Original Research
Introduction: Determining dental anxiety in children is of prime importance in the first dental visit as it leaves an impact and influences future behavior towards dental treatment.

Aim: To assess the validity and reliability of animated visual facial pain/anxiety rating scale AVFP/ARS, for measuring dental anxiety in children during first dental visit.

Methods: 60 children of 4 to 14 years who met inclusion criteria were divided into two groups based on treatment procedure, Group 1 class 1 restoration and Group 2 IANB. In both groups, anxiety was measured using FIS, VPT, WBRS, CBCS, And AVFP/ARS, before, during and after the procedure. The obtained scores were analyzed using Pearson’s product moment coefficient.

Results: A strong correlation of 0.9 was found between AVFP/ARS and the other scales indicating good validity of AVFP/ARS.

Conclusion: Our study suggests that AVFP/ARS can be used as a new tool to assess dental anxiety in children.

LOC in pediatric dentistry

Umaramana Prakhyaa
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Presentation Type: Oral
Category: Original Research
Introduction: Oral health care in special children requires higher communication skills and reinforcing the same with schoolteachers can make the learning experience fruitful.

Aim: To evaluate oral hygiene status of differently abled children along with assessment of awareness on oral health care among their teachers and parents.

Methods: 78 children aged 4-15 years attending government special schools in Sangareddy with parents along with their respective teachers participated in the study. DMFT/DEFT and OH-S score was recorded along with a self-administered questionnaire to parents. Followed by dental health education through specially designed models & charts.

Results: Out of 78 children, 69% needed treatments. Only 6% visited a dentist previously. 89% of the parents reported lack of awareness in rendering dental care for their children.

Conclusion: Oral health awareness and education with 3 levels of communication (LOC) can largely bring a change in practices in monitoring dental health.

Bromelain enzyme combined with carbamide peroxide as a novel intracoronal bleaching agent for discolored non-vital primary incisors

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Presentation Type: Oral
Category: Original Research
Introduction: Discoloration of non-vital anterior teeth is an esthetic deficiency and intracoronal bleaching is one of the viable option for treatment.

Objective: To compare the clinical performance of bromelain+22% carbamide peroxide gel with sodium perborate as intracoronal bleaching agents for discolored primary incisors.

Methodology: This study comprises a total of 20 discolored non-vital primary incisors in children of 4 to 8 years. Following pulpectomy, the teeth were randomly divided into two groups depending on bleaching agent used as Group a bromelain plus carbamide peroxide gel and Group b sodium perborate. Clinical evaluation of the treated tooth was carried out after 7, 14, 21, days for color, patient satisfaction. Results were subjected to statistical analysis.

Results: Both groups exhibited effective shade reduction but the effect of Group a was more significant.

Conclusion: Bromelain+22% carbamide peroxide can be recommended as an effective intracoronal bleaching agent for discolored primary incisors.

Evaluation of inflammatory tissue response of zinc oxide mixed with essential oils in rat model

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Presentation Type: Oral
Category: Original Research
Introduction: To evaluate inflammatory tissue response of eugenol, ajwain oil and combination of both with zinc oxide, as an obturating material in primary teeth.

Methodology: 10 mm long polyethylene tubes containing t1 (ZO+E), T2 (ZO+A), T3 (ZO+E+A), were implanted on right and empty tube on left side of rat back tissues in 24 wistar rats (n=8) under general anesthesia. The tubes with surrounding connective tissues were excised after 21 days and evaluated for inflammatory cells infiltrate, fibrolasts and capillaries. All groups were compared using one way ANOVA and paired t test.

Results: The inflammatory cells infiltrate seen for T1 3087.50 +/- 1049.11; for T2 3137.50 +/- 923.20 and for T3 2800 +/- 1122.50; (p=0.88) while for t1 fibrolasts were 375 +/- 184.84, for t2 220 +/- 67.82 and for T3 297.50 +/- 147.14 (P=0.34)

Conclusion: Zinc oxide when combined with Ajwain oil has comparable histocompatability to conventional zinc oxide Eugenol.

Correlations of oral bacterial urea catabolism with caries experience in normal weight children and underweight children

Aleena Babu
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Presentation Type: Oral
Category: Original Research
Introduction: Alkali generation by oral bacteria plays a key role in plaque pH homeostasis and may be a major impediment to caries development.

Aim: To determine the capacity of oral samples to produce ammonia from urea and its relation to caries experience in normal weight children and underweight children.
Methods: Urease activity was measured in saliva and plaque of 25 caries active individuals who have normal weight and 25 caries active individuals who are underweight. Urease activity was obtained from the ammonia produced by incubation of plaque and saliva samples in urea. Independent sample t test and Pearson’s correlation was used to compare the differences and to correlate the urease levels and caries experience between groups.

Results: The urease levels in oral samples were higher in children with low caries.

Conclusion: Increased caries risk is associated with reduced alkali generating capacity of the bacteria colonizing the oral cavity.

GEN-next probiotic chewing tablets: An end before the beginning of caries!

Ankita Chanda
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Presentation Type: Oral
Category: Original Research

Introduction: Probiotics have piqued interest as a preventive agent for dental caries since a decade. However their use has been limited with very few studies. Recently the new generation s. salivarius probiotic chewing tablets were introduced which have shown to have competitive inhibition of s. mutans and lactobacilli, thus preventing dental caries and preserving good oral health.

Aim: To evaluate competitive inhibition of s. mutans and lactobacilli by s. salivarius containing probiotic tablets in children aged between 3-6 years.

Methodology: School children aged 3-6 years were divided in 3 groups:
- Group a-control (mineral water),
- Group b - probiotic tablets,
- Group c- cheese. Administration was done under observation in the morning. Plaque samples collected before and after each ingestion were examined for s. mutans and lactobacilli count.

Results: There was marked reduction in s. mutans and lactobacilli colonies count following intake of probiotic tablets.

Conclusion: Hence s. salivarius probiotic tablets are the path-breakers in reduction of dental caries.

Refurbishing the exterior

Nikita Budhwar
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Presentation Type: Oral
Category: Original Research

Introduction: Acidic beverages have high demineralization potential of dental hard tissues and their consumption coupled with inadequate oral hygiene leads to enamel erosion which is more frequent among children.

Aim: To evaluate the occlusion of dentinal tubules by remineralisation tooth pastes enduring acidic challenge.

Materials and Methods: Dentin disc were prepared and exposed to acidic solution of pH 2.5 for 5 minutes followed by washing and drying. The discs were then randomly divided into three groups of 10 each. Each disc was brushed for 2 minutes using soft bristled toothbrush with enafix or toothmim or tooth mousse. Then the discs were examined under scanning electron microscope for evaluating amount of dentinal tubule occlusion.

Results: Enafix and toothmim micro photographically showed significantly higher amount of occluded dentinal tubules than tooth mousse with a p value of < 0.05.

Conclusion: Remineralising dentinfrices could be of some help in combating acidic challenge in oral environment.

Correlation between parenting styles and child behaviour in dental operatory

Diksha Sharma

Swami Devi Dyal Hospital and Dental College, Barwala, Panchkula, Haryana, India

Presentation Type: Oral
Category: Original Research

Introduction: Parenting styles have been viewed with great interest and have important influences on child’s behaviour during the dental treatment.

Aim: The study evaluated the correlation between parenting styles and child behaviour in dental operatory.

Methods: 80 parents of patients in the age group of 6 to 12 years visiting the department for the first time to seek dental treatment were randomly selected and were divided into 2 equal groups according to the age of children i.e. 6-9 and 9-12 years (n=40/group). Parents were interviewed for parenting styles using parenting style dimension questionnaire and the child’s behaviour was assessed using Frankl behavior rating scale.

Results: A statistically significant correlation was seen between child’s behavior and parenting styles.

Conclusion: The evidence supports that the children with authoritative parents exhibited more positive behaviour compared to that of the children with authoritarian and permissive parents.

Fiber reinforced composite loop space maintainer versus conventional band and loop space maintainer: A comparative study

Reena Rani
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Presentation Type: Oral
Category: Original Research

Introduction: Premature loss of primary molar frequently results in arch length deficiency and malocclusion; to prevent this space maintainers are indicated.

Aim: To compare the clinical success of two fixed type of space maintainer; fiber reinforced composite resin (FRCR) and conventional band and loop space maintainers.

Methods: 30 healthy children, aged 6-8 years and those having at least two deciduous molars indicated for extraction in contra lateral quadrants, FRCR space maintainer was placed in one quadrant and band and loop space maintainer in other. Retention of both types of space maintainers was evaluated clinically at 1, 3, 6 and 9 months.

Results: Retention of the FRCR space maintainer was found to be superior than conventional band and loop space maintainer and results were statistically significant (P=0.0335).

Conclusion: FRCR space maintainers can thus be considered as better alternative to the conventional band and loop type of space maintainers.

Comparative evaluation of apical microleakage with two novel root canal sealers in young permanent teeth with open apex: An in vitro study

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Presentation Type: Oral
Category: Original Research

Introduction: Achieving adequate seal in immature teeth with open apices is difficult. New sealing materials with improved physical properties, i.e., expansion on setting, ability to seal dentinal tubules, etc. ensure good root canal sealing, and strengthen the dentinal walls.

Aim: To assess and compare the apical microleakage with Bioroot RCS (tricalcium silicate based) and nanoseal s (nanosilver based) sealers.

Methodology: Open apices were created in 45 teeth to simulate immature roots and divided into 3 groups: Group 1: Bioroot RCS, Group 2: Nanoseal s, Group 3: ZOE pulp canal sealer. Root canals were shaped...
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and filled with conventional techniques. Dye penetration by methylene blue was evaluated under SEM.

**Results:** Both experimental sealers showed significantly lesser microleakage than ZOE based sealer.

**Conclusion:** New improved root canal sealers can be used to decrease apical microleakage during endodontic treatment in young permanent teeth with open apices.

**Think before you drink your daily cup of health**

**Sohini Sengupta**
New Horizon Dental College and Research Institute, Bilaspur, Chhattisgarh, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** India is claimed to be the World's largest malt-based drinks market and accounts for about 22% of the World's retail volume sales. Health drinks are marketed for not only producing energy in children but also enhancing their physical and mental growth. They are rich in fermentable carbohydrates and thus a potential source of cariogenic activity.

**Aim:** To assess the cariogenic potential of commonly consumed health drinks by investigating their effect on biofilm formation in the presence of Streptococcus mutans.

**Methodology:** Five health drinks were the experimental groups while milk was the control group. A 24-hour culture of S. mutans was treated with various concentrations of health drinks diluted in bacteriological media. To test for biofilm formation, S. mutans was cultured with the health drinks. The absorbance was measured to evaluate biofilm growth and total absorbance at 595 nm.

**Results:** The increase in biofilm formation in all five groups was statistically significant.

**Conclusion:** Health drinks that are consumed by children in India are potentially cariogenic.

**Comparison of the effect of protective agents on preventing enamel erosion caused by soft drinks**

**Gopika Pradeep**
Yenepoya Dental College and Hospital, Mangalore, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

Dental erosion is a process involving the dissolution of enamel and dentin by non-bacterial acids that soften the enamel. Prevalence of dental erosion is thought to be increasing due to increasing consumption of acidic drinks like soft drinks. This study.

**Aims:** To compare the effects of protective agents on enamel erosion by comparing the mean percentage weight loss. 52 extracted permanent teeth were sectioned into uniform slabs. Initial weight of all specimens was noted. These were divided into two groups (26 each). Group 1: treated with fluoride enhanced hydroxyapatite agents. Group 2: treated with protective agents containing fluoride with tricalcium phosphate. All specimens were immersed in soft drinks for 8 minutes at room temperature. These were then removed from the drinks, and dried. Specimens were weighed after immersion period and mean percentage weight loss was calculated. Enamel dissolution by acidic drinks was analyzed.

**Evaluation of cell proliferation activity of various bioinductive material combinations on stem cells from human exfoliated deciduous teeth: An in vitro experimental study**

**Sujata Dongre**
Maharashtra Institute of Dental Sciences and Research (Dental College), Latur, Maharashtra, India

**Presentation Type:** Oral

**Category:** Original Research

**Aim:** To evaluate cell proliferation activity of bioinductive material combinations on stem cells from human exfoliated deciduous teeth (shed).

**Materials and Methods:** Stem cells derived from primary teeth were treated with combination of three biomaterials; viz. GR I - negative control, GR II - positive control, GR III - BD+MTA, GR IV - BD+EMD, GR V - MTA+EMD. Cell proliferation was assessed by MTT assay at the end of 4 hours, 24 hours and 48 hours. Results obtained were statistically analyzed using ANOVA and Paired 't' test.

**Results:** At the end of 4 hours, Gr III showed highest cell proliferation (136%), mean 1.165 nm absorbance followed by Gr V (108%), mean 0.939 nm at the end of 24 hours and (109%), mean 0.818 nm absorbance at the end of 48 hours respectively.

**Conclusion:** Combination of MTA & EMD has shown highest cell survival and proliferation, exhibiting better favorability and efficacy.

**Comparative evaluation of clinical and radiographic outcomes of indirect pulp treatment with silver diamine fluoride (SDF) versus calcium hydroxide in primary teeth: A randomized controlled trial**

**Kushboo Bherulal Jain**
Terna Dental College and Hospital, Navi Mumbai, Maharashtra, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** The goal of indirect pulp treatment (IPT) is to preserve dental substrate and maintain pulp vitality.

**Aim:** To evaluate and compare clinical and radiographic outcomes of IPT with SDF and calcium hydroxide in primary teeth.

**Methods:** A total of 50 primary molars were randomly divided into two groups of 25 each. The procedure will be carried out under rubber dam isolation. Cavity preparation followed by placement of IPT agent i.e. 38% SDF or calcium hydroxide will be done depending on the group allotted. Final restoration will be done using resin modified glass ionomer cement. Teeth will be evaluated clinically and radiographically at baseline, 1, 3 and 6 months postoperatively.
Abstracts

Pediatric endodontic failures: An institutional study
Avula Jogendra Sai Sankar
Sibar Institute of Dental Sciences, Guntur, Andhra Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Although a widely recommended procedure for compromised pulp, endodontic treatment may fail when the treatment falls short of acceptable standards. Retrospective assessment of procedures performed in dental college is a valuable tool to critically assess the teaching/learning process.
Aim: To evaluate the factors associated with endodontic failures performed by postgraduate dental students.
Methodology: Radiographic records of patients who have undergone pulpectomy procedure in the pediatric department during 2017-2019 were evaluated. Various reasons like quality of coronal restoration, quality of obturation, missed canals, separated instruments and procedural errors were evaluated.
Results: In most of the cases more than one cause has been attributed. Improper post endodontic restorations, inappropriate biomechanical preparation, poor quality obturation, missed canals and file separation are the major short comings.
Conclusion: Standard treatment protocol and through knowledge and skills are needed, to attain successful outcome.

Salivary urease activity as endogenous protection against dental caries in blind children
Anisha Nanda
Navodaya Dental College, Raichur, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Caries disease has been studied for its acidogenic nature and it has been proposed, the increase in alkali production as a strategy to reach oral pH homeostasis and prevent dental caries.
Aim: To evaluate the ureolytic activity of saliva in caries active and caries free blind children.
Methods: Urease activity was measured in saliva and plaque samples from 26 caries free and 26 caries active institutionalized blind children. Urease activity was obtained from the ammonia produced by incubation of plaque and saliva in urea. Mann-whitney test was used to determine the significance of the data.
Results: The specific urease activity in saliva and plaque were significantly higher in children with low caries rate. Caries free subjects had a higher ammonia generation activity by urease for both saliva and plaque samples than low caries active subjects. High levels of alkali production in were related to caries free subjects.

Conclusion will be drawn from the results.

Results will be drawn after statistical analysis.

Bapuji Dental College and Hospital, Davangere, Karnataka, India
Payel Banerjee
Lets bond over grapes: A new era in adhesive dentistry

Presentation Type: Oral
Category: Original Research
Introduction: The need for a promising agent to improve bonding.
Aim: Natural collagen cross-linker GSE can be considered as a promising agent to improve bonding.
Materials and Methods: 26 freshly extracted teeth were hemisectioned and randomly divided into two groups for microleakage, shear bond strength and SEM analysis. Teeth were submerged in phosphate buffer solution and GSE solution respectively i.e. Group a and b, for 1 hour before bonding and restoring. Results were obtained using independent “t” test.
Results: Statistically significant difference were obtained for SBS and microleakage in gingival wall. Resin tags were more densely packed and long in GSE group.
Conclusion: Natural collagen cross-linker GSE can be considered as a promising agent to improve bonding.

Comparative evaluation and correlation of calcium, salivary protein and alkaline phosphatase in caries free and severe early childhood caries among preschool children in Magaluru rural
Jansheera
Siliconia Apartment, 1607A Kuthar Padavu, Deralakatte, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Early childhood caries (ECC) is a serious public health problem. Its consequences can effect the lifestyle and quality of life. The realationship between calcium, salivary protein and alkaline phosphatase in severe ECC plays a vital role in diagnosis and treatment planning. The study aims to evaluate compare and correlate the calcium, salivary protein and alkaline phosphatase of children in caries free and severe early childhood caries. A total of 25 children with severe early childhood caries (age 3-6 yrs) as study GP and 25 children caries free (age 3-6 yrs) as control GP. Are selected.levels of calcium, salivary protein and alkaline phosphatase assed and correlated with the incidence of early childhood caries. Calcium level seen to decrease from caries free to early childhood caries GP. Whereas salivary protein and alkaline phosphatase level increase from caries free to severe early childhood caries GP.

Aquatine endodontic cleanser: A novel approach to root canal disinfection
Sanjana Ramakar Kodical
Bapuji Dental College and Hospital, Davangere, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Need for an alternative irrigant due to inherent tissue toxicity properties of sodium hypochlorite (NAOCL).
Aim: Comparison of the anti-microbial efficacy of aquatine endodontic cleanser (AEC) solution with and without laser activation relative to NAOCL.
Materials and Methods: 45 freshly extracted primary teeth inoculated with E.faecalis were randomly divided into three groups according to intervention i.e. i-2.5% NAOCL, II- AEC, III- laser activation with AEC. Pre and post-operative bacterial counts were determined. results were obtained using one-way analysis, Tukey’s post-hoc test and paired t-test.
Results: Statistically significant difference was obtained between Group I and Group II (P=0.024) and between Group I and Group III (P=0.003).
Conclusion: AEC can be considered as a promising alternative for the disinfection of root canals.

Bailing the frowns
Heenal Gurnani
DY Patil University School of Dentistry, Navi Mumbai, Maharashtra, India
**Abstracts**

**Presentation Type: Oral**  
**Category: Original Research**  
**Introduction:** The aim of the study was to evaluate the effectiveness of different agents in regenerative endodontics for the treatment of primary mandibular molars. The study was conducted at a tertiary care center in India.  
**Aim:** To evaluate the cytotoxicity of different agents used in regenerative endodontics.  
**Methods:** A double-blinded randomized controlled trial recruiting participants (6-9 years old) requiring pulpectomy was designed. 45 primary mandibular molars were randomly allocated into hand k-files; KEDO-SH and Kedo-SG blue groups (15 each). Quality of obturation and post-operative pain experience was evaluated. Statistical analysis was performed using Pearson's chi-square test, Kruskal-Wallis test and Mann-Whitney U Test.  
**Results:** Optimal fillings were observed more in rotary KEDO-SG blue group (80.0%) [p < 0.017]. Optimally filled children experienced less post-operative pain compared to overfilling and underfilling.  
**Conclusion:** Rotary KEDO-SG blue group resulted in higher percent optimal fillings and superior quality of obturation with lesser post-operative pain in children.

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**Effect of potassium iodide on staining potential of silver diamine fluoride under adhesive restorations: An in-vitro study**  
**Ealy Vennela**  
Government Dental College, Kachiguda, Hyderabad, Telangana, India  
**Introduction:** Silver diamine fluoride (SDF) is a cariostatic agent causing dark stain, a drawback leading to parental reluctance towards SDF therapy. A novel approach to combat this problem is to apply potassium iodide (KI) immediately after SDF application.  
**Aim:** To compare the effect of KI on staining of SDF before and after restoration with GIC and composite.  
**Materials and Methods:** Forty carious deciduous teeth were divided into 4 groups: I- SDF- GIC, II- SDF- composite, III- SDF+ KI- GIC and IV- SDF+KI- composite (n=10). The variation in colour is compared using standard munsell colour system.  
**Results:** The coal- black stain of SDF disappeared after application of KI and did not cause discoloration of GIC and composite.  
**Conclusion:** KI reduced discoloration of SDF. Its effectiveness should be clinically substantiated.

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**Swipe.....wipe......and.....redefine!!!**  
**Pragyna Priyadarshini**  
Saveetha Dental College and Hospitals, Chennai, Tamil Nadu, India  
**Presentation Type: Oral**  
**Category: Original Research**  
**Introduction:** One of the pivotal points to be considered during treatment as agents used might have a direct influence on treatment outcome.  
**Aim:** To evaluate the cytotoxicity of different agents used in regenerative endodontics.  
**Methods:** Most commonly used agents in regenerative endodontics were taken and divided into different groups. Samples of 2 ml RBC suspension were randomly assigned to each of these groups. After centrifugation of RBC, supernatant was subjected to hemoanalyser for estimation of hemoglobin concentration. The results were statistically analysed using ANOVA test.  
**Results:** Highest rate of cytotoxicity was shown by 3% NAOCL and least with normal saline with mean HB concentration of 0.515 gm% and 0.043 gm% respectively. Statistically significant difference was found among different test groups with a p value of < 0.001.  
**Conclusion:** The present paper enlightens the significance of cautious use of materials used during endodontic procedures.

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**Evaluation of cariostatic and remineralizing potential of two commercial silver diamine fluoride preparations using confocal laser microscopy and EDX spectroscopy: An in vitro study**  
**Sagar Durgadas Misal**  
Maharashtra Institute of Dental Sciences and Research (Dental College), Latur, Maharashtra, India  
**Presentation Type: Oral**  
**Category: Original Research**  
**Introduction:** Childrens smart phone addiction is a challenge most parents have been facing today, entertainment playing a major role, from music to playing online games. Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder characterized by varying levels of inattention, distractibility, and age inappropriate activity level. The oral health in ADHD is a common concern due to improper oral hygiene practices, and sugary food consumption. Therefore, we as pediatric dentists can help the parents to channelize their child's interest towards a better use of a smart phone and thereby motivate them to maintain good oral hygiene.

**Aim:** To evaluate and compare the effectiveness of dental apps in managing the child's oral hygiene against the conventional methods in children with ADHD.  
**Methods:** A randomized controlled study including 28 participants between the age group of 7-9 years at baseline. Group 1: control group participants will be verbally instructed and shown models to maintain oral hygiene. Group 2: study group participants will be taught to use the app "Brush Dj." The oral hygiene index-simplified of each child will be evaluated at baseline, 15 days and 1 month and a questionnaire for oral hygiene measures.

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**Pre-cooled gel: Key to painless needle prick!**  
**Swapna Virdikar**  
Bapuji Dental College and Hospital, Davangere, Karnataka, India  
**Presentation Type: Oral**  
**Category: Original Research**  
**Introduction:** Cryoanesthesia is one of the clinical approaches used to control pain during LA administration in children.  
**Aim:** Comparison of efficacy of precooled and plain 5% lidocaine topical gel on pain perception during needle insertion for LA administration in children.  
**Methods:** A randomized controlled study including 28 participants randomly allotted to control and intervention group. Pulse rate, blood pressure was evaluated before, during and after pain perception using vas. data collected was analysed using independent t-test and Mann Whitney-u test.  
**Results:** Statistically significant result was obtained with intervention group during LA administration with respect to pulse rate and pain perception (P-value~0.001).  
**Conclusion:** Pain experienced after application of precooled gel before LA infiltration is less compared to plain topical gel.

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**Root canal merchandise: A double edged sword**  
**K Sravani**  
GITAM Dental College and Hospital, Visakhapatnam, Andhra Pradesh, India  
**Presentation Type: Oral**  
**Category: Original Research**  
**Introduction:** Regenerative endodontics being a biological procedure, needs utmost care during treatment as agents used might have a direct influence on treatment outcome.  
**Aim:** To evaluate the cytotoxicity of different agents used in regenerative endodontics.  
**Methods:** Most commonly used agents in regenerative endodontics were taken and divided into different groups. Samples of 2 ml RBC suspension were randomly assigned to each of these groups. After centrifugation of RBC, supernatant was subjected to hemoanalyser for estimation of hemoglobin concentration. The results were statistically analysed using ANOVA test.  
**Results:** Highest rate of cytotoxicity was shown by 3% NAOCL and least with normal saline with mean HB concentration of 0.515 gm% and 0.043 gm% respectively. Statistically significant difference was found among different test groups with a p value of < 0.001.  
**Conclusion:** The present paper enlightens the significance of cautious use of materials used during endodontic procedures.
Presentation Type: Oral
Category: Original Research
Aim: To determine the relationship between oral health behaviour of IVF children and their parents.
Methods: A random sample of 3-5 years old IVF children and their parents were included in the study. Oral health behaviour of both parents and children were analyzed with regression and correlation analysis.
Results: Statistically significant relationships were found between oral health behaviour of IVF parents and their children.
Conclusion: Parents of IVF children are more concerned about their children's oral health.

A comparative evaluation of the efficacy of peracetic acid-based disinfectant and chlorhexidine for decontamination of acrylic resins: An in vitro study
Juhu Mehta
Darshan Dental College and Hospital, Udaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research
Aim: To assess the antimicrobial efficacy of peracetic acid and chlorhexidine for the decontamination of acrylic resins.
Materials and Methods: Forty specimens of chemically activated acrylic resin were fabricated and contaminated by inoculum of candida sp. Twenty specimens from each group were immersed in the following disinfecting solutions: 1) 5% peracetic acid, 2) 0.2% chlorhexidine. Bacterial growth was observed by analyzing the number of colony forming units (CFU) after incubation. Values of each group were statistically compared.
Results: Efficacy of LAI in removing both CA(OH)2 and MTAP was highly significant when compared to UI(p=0.008). Irrespective of technique used removal of CA(OH)2 was higher than MTA.
Conclusion: LAI is more effective for the removal of CA(OH)2 and MTAP from acrylic resins.

Evaluation of the average nasal and nasopharyngeal volume in 10–13 year old children: A preliminary CBCT study
Shruti Balasubramanian
Government Dental College and Hospital, Nagpur, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Aim: To assess the impact of laser activated irrigation (LAI) and ultrasonic irrigation (UI) in removing calcium hydroxide and modified triple antibiotic paste from the root canals.
Results: Laser activated irrigation (LAI) was more effective in removing both calcium hydroxide and modified triple antibiotic paste (MTAP) from the root canals.
Conclusion: Laser activated irrigation is a viable alternative for the removal of calcium hydroxide and modified triple antibiotic paste from root canals.

Can light beat vibrations!- Efficacy of laser activated ultrasonic irrigation in removal of calcium hydroxide and modified triple antibiotic paste from the root canals - in vitro evaluation
Swathi Pasupuleti
Vishnu Dental College, Bhimavaram, Andhra Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Intracanal medicaments play a crucial role in the elimination of bacteria and their byproducts. Its removal is challenging for success of endodontic therapy. Various irrigation techniques such as laser activated irrigation (LAI) and ultrasonic irrigation (UI) have been tried.
Aim: To evaluate the efficacy of laser activated and ultrasonic irrigation techniques in the removal of calcium hydroxide (CA(OH)2) and modified triple antibiotic paste (MTAP) from root canals.
Methods: Forty freshly extracted maxillary incisors were instrumented and the samples were randomly divided into four groups: Group-I: CA(OH)2 with LAI; Group-II: MTAP with LAI; Group-III: CA(OH)2 with UI; Group-IV: MTAP with UI. Teeth were then split longitudinally and assessed for residues under a stereomicroscope at 25x magnification using a grade scoring system.
Results: LAI was more effective in removing both CA(OH)2 and MTAP as compared to UI(p=0.008). MTA was more resistant to both LAI and UI.
Conclusion: Laser activated irrigation is more effective in removing both CA(OH)2 and MTAP from root canals.

Dilemma surrounding biomaterial collagen: Clinical and radiographic evaluation in pulpotomised human primary molars over 12-month period
Priyanka Goswami
Inderprastha Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Aim: To evaluate the clinical and radiographic success of pulpotomy using antibiotic impregnated collagen over 12 months.
Methods: 24 healthy 3-8 year old children with at least one carious primary molar were included in the study. Biofil AB particles mixed with saline were used as pulpotomy medicament and teeth were restored. Evaluations were performed at 3, 6, 9 and 12 months.
Results: A clinical and radiographic success of 79.2% and 66.7% respectively was recorded. Intraoral sinus, periapical radioluency were observed in 16.7% and 25% of cases respectively.
Conclusion: The present study oddly shows that the use of collagen in primary tooth pulpotomy has led to compromising results and further research is required to confirm the utility of antibiotic impregnated collagen as a pulpotomy agent.

Dental perspective of in-vitro fertilized children: An unexplored arena of journey
Sudipta Kar
Gurunanak Institute of Dental Science and Research, Kolkata, West Bengal, India

Presentation Type: Oral
Category: Original Research
Introduction: Difficulty in conceiving is a widespread problem. Women classified as infertility as a disease which deserves treatment as like any other medical condition. In vitro fertilization-embryo transfer (IVF-ET) is the fertilization of an ovum outside the body and the transfer of the fertilized ovum to the uterus of a woman, is one of the popular treatment modalities of infertility.
Aims: Aim of the study is to evaluate the relationship between oral health behaviour of IVF children and their parents.
Methods: A random sample of 3-5 years old IVF children and their parents were included in the study. Oral health behaviour of both parents and children were analyzed with regression and correlation analysis.
Results: Statistically significant relationship was found between oral health behaviour of the IVF parents and their children.
Conclusion: Parents of IVF children are more concerned about their children’s oral health.

Abstracts
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Knowledge, attitude and practice of infection control among dental students in Chhattisgarh state

Rukhsar Rasheed
Maitri Dental College, Durg, Chhattisgarh, India

Presentation Type: Oral
Category: Original Research

Aim: Current study highlights the method and behavior, to evaluate the benefits of awareness and pursuit of infection control among dental students, of various colleges in Chhattisgarh state.

Materials and Methods: A questionnaire based study, was performed amongst dental students of 3rd year, 4th year and interns. The reconnaissance consisted of, 19 closed ended questions that included the key areas of infection control. The data extracted were tabulated, statistically analyzed and results obtained.

Results: The response rate was 84.3% (n=896). Results of the study revealed that, 74.4% students were aware of the universal precautions. 81.3% students are immunized against hepatitis b, 57.2% of students knew the designated color codings for waste discard, 100% students use autoclave for sterilization of instruments.

Conclusion: The unsatisfactory findings highlight the need for enduring instructions, eprograms and short time processions about acrccross-infections and infection control modes, convenient to progress awareness and attitude of dental students in infection control.

Association between types of contact areas and early childhood caries: A preliminary prospective cohort pilot study

M Kirthiga
Sri Ramachandra Dental College and Hospital, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research

Introduction: Broad proximal contact areas are likely to increase caries susceptibility, as self-cleansing action would be limited.

Aims: To assess the longitudinal relationship between types of contact areas of primary molars and dental caries experience in children aged 3-6 years.

Methods: A prospective cohort study was performed among 215 caries free (ICDAS “ 0) school children in pondicherry. The type of contact area of children (860 contacts) was scored according to OXIS classification.

Results: The caries incidence among c type, X type, i type and s type of contacts was 0, 0, 8.9% and 19.6% respectively.

Effectiveness of different tooth brushing techniques and teaching methods on the removal of dental plaque in school children

Sailendra Sharma
Maitri College of Dentistry and Research Centre, Durg, Chhattisgarh, India

Presentation Type: Oral
Category: Original Research

Aims: To evaluate the effectiveness of different brushing techniques demonstrated on the cast and by audiovisual methods for the removal of dental plaque in school children.

Materials and Methods: Total of 90 healthy children aged 3 to 11 years were randomly selected from various schools of anjora, durg. They were equally divided into three groups. Children in each group were demonstrated only one of the three brushing techniques, viz. Horizontal scrub (Group a), Fones (Group b), and modified bass (Group c), using a cast model and by audiovisual method. All the children were examined and baseline plaque index was recorded. They were reexamined and reviewed after 2 days and plaque index was reassessed to obtain the followup data.

Results: Statistically significant (p < 0.001) reduction in plaque score was seen in modified bass.

Conclusion: Modified bass was found to be the most effective brushing technique in children.

Clinical evaluation of efficacy of 38% silver diammine fluoride in arresting dental caries in children: A pilot study

Aparna Chaurasiya
KD Dental College and Hospital, Mathura, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: Recently remineralization of carious lesion has gained acceptance in the treatment of ECC. Topical application of SDF as a therapeutic modality can arrest the caries in children.

Aim: To assess the clinical effectiveness of 38% SDF in arresting of dental caries and the parental acceptance of SDF treatment in children.

Methodology: Children aged 3-5 years who had at least one active caries lesion were randomly selected in the study. After baseline examination, 72 carious lesions were treated with 38% SDF application. Children were re-evaluated at 3-week and 3-month to determine the arrest of carious lesion and parental acceptance was recorded.

Results: Of 72 lesions, 86.11% were found to be arrested at first recall and 98.61% at second recall. Parental acceptance was 100%.

Conclusion: Results suggested that 38% SDF was effective in arresting active caries lesions in children and was well accepted by parents.

Assessing the first and second permanent molars eruption and their association with body mass index among children

Chennupalli Yamini Krishna Priyanka
Vishnu Dental College, West Godavari District, Bhimavaram, Andhra Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: Emergence of first permanent molar (FPM) and second permanent molar (SPM) is a major milestone within the development of functional occlusion. Recent evidence suggests that increased adiposity, as measured by body mass index (BMI), is associated with dental growth acceleration and earlier tooth emergence.

Aim: To assess the emergence of first and second permanent molars among children and their association with BMI.

Materials and Methods: A cross-sectional study was conducted in 618 school children of age 5-8 and 10-14 years. Intra-orah examination was
done for eruption of molars, measuring height and weight, BMI was calculated.

*Results:* Girls have shown early eruption than boys in both molars however only FPM (p=0.002) has shown statistical difference. When BMI is considered, earlier eruption was seen with fpm in overweight children (38.4%) and SPM in obese children (55.9%).

*Conclusion:* Eruption of fpm and SPM was earlier in girls. BMI and eruption showed positive correlation.

### Evaluating the knowledge of physical education training teachers pre and post video based education on emergency management of avulsion-Bengaluru

*M Divya Swaroop*

KLE Society's Institute of Dental Sciences, Bengaluru, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** Prevalence of avulsion among traumatic injury of primary and permanent dentition- 7-13 % and 1-6% respectively. PT teachers play an important role in prevention/first aid for dental trauma during sports activity and breaks. Present study focuses on educating PT teachers on emergency management of avulsion with help of an educational video.

**Aims:** To assess and compare pre and post knowledge of PT teachers on emergency management of avulsion following a video presentation and to assess the effectiveness of educational video presentation.

**Methods:** Study includes 112 teachers undergoing DPED, BPED training WHOS response was recorded pre, post educational video presentation through questionnaire.

**Results:** Vast majority of respondents indicated that they had little knowledge regarding emergency management of avulsed tooth.

**Conclusion:** Although PT teachers in Bengaluru city had considerably good knowledge of first aid, knowledge on management of dental trauma remained inadequate.

### “Knee to knee” position for oral examination in infants and toddlers: An assessment of attitude and practice of paediatric dentists in Bengaluru city

*Aishwarya Chidambareswar*

Sri Rajiv Gandhi College of Dental Sciences and Hospital, Bengaluru, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** The oral examination and treatment of infants/toddlers can be challenging. This warrants the use of an examination technique that is comfortable for the dentist, parent and child. The knee-to-knee position is one among the various positions facilitating dental examination of young children.

**Objectives:** To assess the attitude and practice of paediatric dentists towards the use of knee-to-knee position for oral examination in infants and toddlers.

**Methodology:** Pre-validated questionnaires were distributed to 62 paediatric dentists in Bengaluru City.

**Results:** About 90.3% and 78.3% of the participants reported using (knee-to-knee position for dental checkups and other procedures (interim restorative procedure and oral hygiene instructions-most common) respectively.

**Conclusion:** Knee-to-knee position was found to be convenient for dental examinations and other simple procedures in very young children.

### Management of pediatric mandibular angle fractures: A simple and promising technique

*Hitesh Chander*

PDU Government Medical College, Churu, Rajasthan, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** The management of pediatric mandibular angle fractures is a challenging task requiring either ORIF or MMF with ERICH arch BAR; both of which besides invasive present with their own drawbacks.

**Aim:** The aim of this present study is to retrospectively analyze MMF with orthodontic bracket-elastic for management of pediatric mandibular angle/distal fractures.

**Methodology:** Seventeen pediatric mandibular angle/distal fracture managed with MMF with orthodontic bracket-elastic were retrospectively evaluated. Two weeks of immobilization with one week of guiding elastics were placed.

**Results:** The mean age of patients was 7.6 ± 1.6 years with a mean follow up of 24 months. All the fractures healed uneventfully with satisfactory occlusion. The 15.8% developing tooth buds in the fracture line showed root dilacerations.

**Conclusion:** MMF with orthodontic bracket-elastic is a simple and promising technique for management of mandibular angle fracture in pediatric patients.

### Phenotypes of deciduous molar hypomineralization: A study on 4–7 years old north Indian children

*Pavithra Devi*

PGIMER, Chandigarh, India

**Presentation Type:** Oral

**Category:** Original Research

**Aim:** To evaluate the various phenotypic distribution of DMH in 4-7 years old north Indian children.

**Methodology:** An observational cross sectional study on 60 children affected with DMH was performed to elucidate the various phenotypes of DMH using the adapted EAPD 2003 criteria.

**Results:** It was observed that 31.66% children with DMH had hypomineralized defect in first primary molars as well. The most prevalent phenotype was HE+HD while the least prevalent was HE+HFPM+HP1.

**Conclusion:** Along with HSPM, 1/3rd of the subjects had hypomineralized defect in first primary molars with varying extent and severity.

### Does new always mean better? Comparison of retention rates of conventional and newer sealant material

*P Bhuvaneswari*

Vishnu Dental College, West Godavari District, Bhimavaram, Andhra Pradesh, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** Pit and fissure sealants are highly effective in reducing occlusal caries and their success is directly related to retention. Newer material self-adhesive flowable composite dyad flow offers high bond strength and mechanical strength thus serving a better alternative to conventional sealants.

**Aim:** To evaluate the retention rate of conventional sealant and self adhering flowable composite as fissure sealant in 6-9 year old children.
Effect of papain deproteinization on the micro shear bond strength of restorative material in primary dentine
Pragya Jain Kothari
The Oxford Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Effect of dentine deproteinization has not been well studied in relation to bond strength.
Aim: To evaluate the micro shear bond strength (μSBS) of caries affected and sound primary dentine following deproteinization.
Methodology: Thirty two carious and thirty two sound exfoliated human primary teeth were sectioned mesiodistally to obtain the flattened carious and sound dentine surface. The samples were grouped into: Group 1- conventional method; Group 2- papain deproteinization method. Each sample was acid etched with 37% phosphoric acid for fifteen seconds and rinsed followed by remineralization using composite filtek z-350 in Group-1; and in Group-2 additionally papain gel was applied after etching and was subjected to statistical analysis.
Results: Sound dentine had a higher μSBS compared to carious dentine in both the groups. However, it was significantly higher in Group-1 (p-value = 0.02) and between the groups.
Conclusion: The μSBS decreased following papain deproteinization.

Effect of chitosan and ginger-honey mixture on white spot lesion remineralization
Shefali Kaul
Private Practitioner

Presentation Type: Oral
Category: Original Research
Introduction: The caries process is a highly dynamic disease of almost pandemic proportions. Early detection, treatment and preventive protocol needs to be the mainstay for management.
Objective: Evaluation and comparison of remineralizing potential of ginger Manuka honey mixture and chitosan on white spot lesions (WSL) using quantitative light induced fluorescence (QLF).
Methods: Area of interest (AOI) measuring 4x4 mm was formed on buccal surface of 45 extracted premolars. Each sample underwent demineralization process followed by remineralization regime for 21 days. QLF readings were recorded at day 0, 7, 14, 21 and analysed using QLF inspektor propriety software.
Results: Highly significant remineralization was seen each week with chitosan whereas ginger honey showed effect only by 14th day.
Conclusion: Rapid changes in the AOI with chitosan holds great promise in WSL reversal. Ginger-Honey on the other hand showed a more gradual change due to a possible slower mechanism of action.

Topographic distribution of caries in young permanent mandibular molars and its relation to apical periodontitis: A radiographic analysis
Sushma Yadav
SGT Dental College, Gurugram, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Caries in young permanent teeth progresses rapidly resulting in early pulp involvement which further progresses into periapical lesions. Periapical scoring system (PAI) is an invaluable diagnostic tool used to evaluate periapical lesion extent.
Aim: To evaluate relationship of the surface distribution of caries in young permanent molars and periapical index (PAI) score along with type of periapical lesion in mesial and distal root of young permanent mandibular molars.
Methodology: In this retrospective single center study, 100 pulpally involved carious young permanent molars will be included. Topographic distribution of caries and radiographic analysis (using PAI) will be done. Results: No significant correlation between site of caries involvement and PAI score was observed. PAI score for distal roots was higher as compared to mesial roots for pulpfully involved carious young permanent molars.
Conclusion: Severity of PAI score is independent of topographic distribution of caries.

In search of a preferential method for improving quality of life of children with ECC in single visit treatment
Raja
Postgraduate Institute of Medical Education and Research, Chandigarh, India

Presentation Type: Oral
Category: Original Research
Introduction: Early childhood caries among preschool children being 5-8 times more common than asthma and significantly affects the quality of life of these children in terms of recurrent pain, infection and other associated problems.
Aim: To assess the change in oral health-related quality of life in children = 4 years undergoing complete oral rehabilitation under general anaesthesia.
Methods: 50 healthy children affected with ecc were enrolled for the present study. QOL of every child was assessed by interviewing their mother using pre-validated ECOHIS questionnaire one day prior to the treatment appointment and was compared 1 month post treatment.
Results: The results revealed a statistically significant reduction of QOL scores for all the domains, between baseline and after 1 month follow up which also affected the total ECOHIS score.
Conclusion: One month post treatment ECOHIS scores, that depicted the QOL, were significantly lower than baseline scores after complete oral rehabilitation.

Antibacterial efficacy of silver diamine fluoride at various dilutions compared to fluoride varnish: An in vivo study
Bharathy V Sankar
K.L.E Society’s Institute of Dental Sciences, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Treatment of dental caries require advanced skills of clinicians and high cost for patient management. Thus, prevention and control of caries must be undertaken as early as possible.
Aim: To evaluate and compare the antibacterial efficacy of silver diamine fluoride (SDF) and fluoride varnish against s. mutans.
Methods: 52 early childhood caries patients were divided into 2 groups. Group i children with caries were treated with SDF. Group II, caries temporization with intermediate restoration followed by fluoride varnish application. Saliva was collected pre-treatment and post application and cultured for s. mutans.
**Abstracts**

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**In vitro assessment of retention in pit and fissure sealant following enamel pre-etching with sodium hypochlorite demineralisation and bonding agent**

**V V Mubeena**
Annoor Dental College and Hospital, Ernakulam, Kerala, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Sealants have proved to be one of the easiest methods of caries prevention on young permanent teeth.  
**Aim:** To assess and compare the rate of sealant retention after placement on etched enamel with and without prior demineralisation and bonding agent.

**Materials and Methods:** 20 freshly extracted third molars were randomly assigned into 4 groups prior to sealant placement. Group 1: 37% phosphoric acid group 2: 5.25% sodium hypochlorite, 37% phosphoric acid group 3: 37% phosphoric acid, bonding agent Group 4: 5.25% sodium hypochlorite , 37% phosphoric acid and bonding agent. These were then subjected to thermocycling in artificial saliva for evaluation of sealant retention which was evaluated based on simonsen criteria (1989).

**Results:** Partial loss of sealant in 3 teeth from group 1. Teeth in other groups showed complete retention.

**Conclusion:** Deproteinisation of enamel prior to acid etching can enhance sealant retention.

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**Comparative evaluation of antibacterial efficacy of conventional glass ionomer cement and resin modified glass ionomer cement containing doxycycline hycyclate and double antibiotic paste on Streptococcus mutans and Lactobacillus spp.**

**Riddhi Joshi**
KLE Vishwanath Katti Institute of Dental Sciences, Belgaum, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Inspite of advancements in dentistry the quest for ideal bioactive material is still on. Incorportation of antibiotics in GIC would make it a priceless material in pediatric dentistry.

**Aim:** The study aimed at comparing antibacterial efficacy of conventional GIC, R GMC with doxycycline and double antibiotic paste (1.5%w/w) on streptococcus Mutans and lactobacillus.

**Methods:** Antibacterial effecacy was measured using agar well diffusion method, material discs of 10 mm were made and inserted in wells. Inhibition zones were calculated after incubation for 24 hours at 37°c with zone interpretation scale.

**Results:** Conventional GIC, RMGC show enhanced antibacterial efficacy with addition of antibiotics compared to their use alone.  
P=0.0001, p=0.0006 for conventional GIC mixed with antibiotics and p=0.0080, p=0.0147 for RMGC combined with antibiotics.

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**Comparative evaluation of ‘less invasive approach’ of caries excavation and ‘only arrest and no excavation approach’ in dental caries management in primary molars: A randomised controlled trial**

**Priya Mahajan**
JN Kapoor Dev (C) Dental College, Yamunanagar, Haryana, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Painless-dentistry, minimising-fear, minimal-intervention and instilling-positive dental attitude are some of the factors justifying the speciality of pediatric-dentistry. Caries excavation using-carie-care, polymer bur are two such minimally-invasive approaches. Recently, a drill-free approach-silver-diamine-fluoride(SDF) has been introduced in the practice of mid for arrest of carious lesion.

**Aim:** To compare-two contemporary strategies-‘less invasive approach’ (polymer bur/carie-care) and ‘only arrest and no excavation approach’ (SDF).

**Methods:** 45 primary molars were randomly divided into 3 groups- Group1a and group1b(LIA) included polymer bur and carie-care respectively with 15 samples each. Group 2 (OAANEA) included-15 samples and SDF.

**Results:** The data obtained was subjected to statistical-analysis using chi-square test. Both the LIA and oaanea groups were found to be painless with SDF taking the lead. On comparison-between- group1a and group1b, carie-care showed significant reduction in pain(p< 0.05) and better-caries removal efficacy though statistically insignificant.

**Conclusion:** SDF application was reported to be easy and painfree. At the end of three months all the samples were asymptomatic clinically as well as radiographically.

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**Comparative evaluation of remineralizing potential of commonly used fluoridated tooth paste, herbal tooth paste, tooth paste with zinc hydroxyapatite and tooth paste with calcium sucrose phosphate in children: An in vitro study**

**Sanjana Soneta**
KLE Vishwanath Katti Institute of Dental Sciences, Belgaum, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Despite of increasing awareness prevalence of early childhood caries is 78.3%. There is need to reduce this incidence by newer invention.

**Aim:** The study was aimed to compare and evaluate remineralizing potential of fluoridated tooth paste, herbal tooth paste, tooth paste with zinc hydroxyapatite and tooth paste with calcium sucrose phosphate in children.

**Materials and Methods:** After calculating the sample size, teeth were subjected to demineralization to mimic white spot lesion and treated with pediatric tooth pastes to assess remineralization. All samples were observed under stereomicroscope and scanning electron microscope.

**Results:** Tooth paste with zinc hydroxyapatite showed the best remineralizing effect than fluoridated tooth paste, herbal tooth paste and tooth paste with calcium sucrose phosphate in children.

**Conclusion:** SDF application was reported to be easy and painfree. At the end of three months all the samples were asymptomatic clinically as well as radiographically.

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**In-vitro evaluation of reliability and validity of ICDAS II coding for occlusal caries diagnosis using magnification**

**Guduru Sasi Rekha**
Vishnu Dental College, Bhimavaram, Andhra Pradesh, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** ICDAS is a clinical scoring system that can be used to detect and assess enamel, dentin, caviatated and non-caviatated lesions. Magnification facilitates better detection of these lesions by enhancing the visibility.
Abstracts

**Aim:** To evaluate the reliability and validity of ICDAS II coding for occlusal caries using magnification.

**Methodology:** Occlusal surfaces of 100 permanent posterior teeth were examined by two calibrated examiners using ICDAS ii followed by sectioning the crowns and assessing depth using ERK histological criteria.

**Results:** There exists a strong correlation between visual, microscope,histological examinations. Spearman’s correlation coefficient of icdas ii for visual and microscopic examination, to ERK histological scores were 0.505-0.881. The sensitivity and LR+ for visual and microscopic examination increased and specificity and LR - decreased with increased icdas scores.

**Conclusion:** Reliability and validity of ICDAS II coding in detecting occlusal caries under magnification did not differ from unaided visual examination.

**Is honey cariogenic? - Evaluation of salivary Ph, buffer capacity and Streptococcus mutans count after intake of different types of honey**

**Penmetsa Satya Sailaja**
Vishnu Dental College, Bhimavaram, Andhra Pradesh, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Honey has antioxidant, antimicrobial and anti-inflammatory effects. It may have antibacterial effect on smutans and may cause changes in salivary pH and buffer capacity.

**Aim:** To evaluate changes in salivary pH, buffer capacity and smutans count after intake of different types of honey (litchi, eucalyptus, coriander, mustard and Jamun honey).

**Methods:** A linear crossover trial was conducted in 20 children aged 10-12 years. Baseline salivary samples were collected. 5ml of honey was given, samples were collected after 2min and analysed for pH, buffer capacity & smutans count. pH was evaluated at 2min, 10min, 20min & 30min.

**Results:** Maximum drop in a) pH was observed with litchi (6.98) at 2min.b) buffer capacity with litchi (4.93) c) smutans count with jamun (44.3).

**Conclusion:** Litchi honey showed maximum drop in pH & buffer capacity, jamun honey showed maximum reduction in smutans count.

**Love at first sight**

**Sudhandra Viswanath**
KSR Institute of Dental Science and Research, Tiruchengode, Tamil Nadu, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** First dental visit is an important milestone which should be marked notably in child’s life history.

**Aim:** To assess the average age and most common reason for the first dental visit of children in Namakkal district, Tamil Nadu.

**Methodology:** A cross-sectional questionnaire survey pertaining to the knowledge, attitude and practice of children first dental visit was conducted among 4543 parents of children less than 7 years.

**Results:** Maximum number of children had their first dental visit above 5 years of age (15%). The most common reason was dental caries (23%). Majority of the parents were unaware of the recommended age of first dental visit (85%) and 89% were not referred by any pediatricians.

**Conclusion:** Most of the children visited dental office only for the complaints of pain. Concept of prevention and awareness of first dental visit is yet to reach the common population.

**“Let no caries start from home” correlation between parenting style, child behaviour and caries experience in 3–6 years old children**

**Kodati Shalini**
Vishnu Dental College, Bhimavaram, Andhra Pradesh, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** Parenting styles have effect on childrens behaviour and caries experience. Child’s behaviour towards dentist varies according to different parenting styles.

**Aim:** To evaluate the correlation between parenting styles, child behaviour and caries experience in 3-6 yrs children.

**Methods:** Parents of children aged 3-6 yrs who visited department of pedodontics and preventive dentistry for an initial examination were asked to respond to the questionnaire, a validated survey instrument to assess parenting style. Calibrated examiner performed an oral examination. Child behaviour was assessed using a frankls behaviour rating scale.

**Results:** Out of 1216 parents 853 authoritative, 248 authoritarian, 115 parents showed permissive parenting styles. Regression analysis: authoritative parenting style have 4.1 times higher chance of developing positive child behavior (p=0.004) and less likely to get caries (P=0.0001)

**Conclusion:** Found correlation between parenting style, child behaviour and caries experience.

**Is deproteinization a solution to the restorative dilemma in MIH affected molars: A randomized controlled trial**

**Mrinalini Rathore**
PGIMER, Chandigarh, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** MIH affected molars undergo dental treatment nearly 9 times more often than their non MIH counterparts, possibly due to their high protein content which weakens the tooth-restoration interface. Thus, considering the potential improvement in the performance of resin restorations after deproteinization of MIH affected molars and the dearth of well designed prospective RCTS evaluating the same, the present study was planned.

**Aims:** To evaluate the effect of deproteinization on the longevity of resin restorations for MIH affected molars.

**Methods:** 40 MIH affected molars (8-14 yrs) were randomized to receive direct composite restorations with or without deproteinization using 5% NAOCL.

**Results:** 3 months clinical (modified USPHS criteria) and radiographic evaluation of the two groups revealed no difference in the longevity of restorations. (P=1.000)

**Conclusions:** Deproteinization in MIH affected molars did not have any statistically significant effect on the longevity of restorations at 3 months.

**Tots in tiny tots: A challenging conundrum**

**Jayalakshmi Pandranti**
Gitam Dental College and Hospital, Visakhapatnam, Andhra Pradesh, India

**Presentation Type:** Oral
**Category:** Original Research

**Introduction:** The condition of tethered oral tissues either in maxilla and mandible might cause feeding issues in infants and they exist on a continuum resulting in a range of ever growing oral health problems.

**Aim:** To assess current opinion/knowledge of oral and maxillofacial surgeons and pedodontists regarding surgical intervention, practical approach, follow up and referral pattern of tethered tissues in infants.

**Methods:** A cross sectional survey was done from 192 dentists of which 46.4% were oral and maxillofacial surgeons and 53.6% were
Introduction: Bite force is the capacity of the mandibular elevator muscles to perform a maximum force of lower teeth against the upper teeth.

Aims: The purpose of the study is to determine correlations between maximum bite force and several variables, including age, sex, body height, weight, BMI, caries index, occlusal pattern, vertical occlusal relationship, attrition, maximum mouth opening, among 3-6 years old preschool children.

Methods: 200 preschool children aged 3-6 years were selected.

Results: Statistically significant difference was found in mean weight, maximum mouth opening, mean occlusal bite, maximum bite force (left), with higher values in boys than girls.

Conclusion: There was significant differences present in mean weight, maximum mouth opening, mean occlusal bite, maximum bite force.

Comparative evaluation of clinical efficacy and efficiency of different caries excavation techniques in pediatric patients: An in vivo study

Arundhati Goyal
K.D Dental College and Hospital, Mathura, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: Restorative dentistry has moved away from a drill and fill philosophy to a minimally invasive approach.

Aim: The aim of this study was to evaluate efficiency, efficacy and patient acceptance after caries excavation with smart burs, ceramic burs, stainless steel burs.

Methods: A total sample of 45 healthy primary molars with occlusal caries between age group 5-9 years were randomly allocated into three groups: (1) smart bur (2) ceramic bur (3) stainless steel bur. Efficiency was recorded using stopwatch, efficacy was recorded using caries detection dye and patient acceptance was evaluated using FLACC scale.

Results: Statistical analysis showed significant results between all the groups in terms of efficiency and patient acceptance whereas results obtained in terms of efficacy was non-significant.

Conclusion: Minimally invasive techniques were found to be better than conventional method.

Behaviour of dpscs in vitro under hyperglycemic and ischemic conditions simulate in vivo scenario

Madhura Pawar
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Presentation Type: Oral
Category: Original Research

Mesenchymal stem cell research successively moves towards clinical phases due to advantageous characteristics such as stemness and plasticity, lack of immunogenicity and no adverse reaction on transplantation. Dental MSCS have been proposed as promising source to be used in a plethora of clinical applications, including dental tissue engineering, repair of bone injury, treatment of neural defects and degenerative diseases. The therapeutic potential of MSCS depends on their ability to survive and proliferate under adverse conditions in a particular disease. When there is an injury to the site, especially diabetic wounds, there can be hyperglycemia and ischemia seen. Studies on animal models have shown inhibition of dentinal bridge formation due to hyperglycemia in diabetic rats. Hence, this study investigates the influence of high glucose and low serum concentrations on the growth kinetics and proliferative potential of DPSCS. The study forms a basis for its clinical applications emphasizing importance of in vitro models.
Abstracts

Effect of school dental health program with audiovisual aid and intraoral camera in improving oral hygiene status and knowledge

V Harshitha
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Presentation Type: Oral
Category: Original Research
Introduction: Health education is widely accepted approach in prevention of oral diseases. Use of audiovisual aid helps in better understanding and intraoral camera gives real picture of patients dental hygiene. Aim: To evaluate the impact of health education using audiovisual AID along with intraoral camera regarding oral hygiene knowledge and status among school children.
Methods: The study included 105 school children belonging to 12-14 years. Oral hygiene knowledge was assessed by questionnaires filled by children and hygiene status by OHIS index simplified before and after health education. Data was then analysed and compared statistically.
Results: Difference in knowledge gain after health education was statistically significant. There was significant difference in reduction of OHI-S score (p=0.00) after study.
Conclusion: Audiovisual aid along with intraoral camera can be effectively used as reinforcement tool in improving the oral hygiene knowledge and status.

Smart technique versus hall technique

B Jyothsna
Sibar Institute of Dental Sciences, Guntur, Andhra Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Newer innovations has changed the concept of “extension for prevention” to “minimally invasive” which are focusing on biofilm control and disruption of the cariogenic bacteria. Aim: To determine the caries arresting effectiveness of silver modified atrumatic restorative technique (smart) and hall technique.
Methodology: Twenty children of both the sexes, aged 7-9 years with atleast two decayed primary molars without pulpul involvement were selected. Using split mouth technique group i was restored with smart and group ii with hall technique. Further clinical and radiological assessment was done at 0, 6, and 12 months interval.
Results: 100% clinical success was observed in both the groups. However in group i samples 95% success rate was observed radiographically over 12 months followup.
Conclusion: Smart technique was found beneficial for pediatric patients as it is less invasive and arrest the caries progression when compared with the hall technique.

Comparative evaluation of canal centricity and cleaning efficacy in root canal system of primary molar teeth using pro AF baby gold and KEDO s rotary endodontic file systems: An in vitro study

Shreyans Jain
Sharad Pawar Dental College, Wardha, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Objective: In root canal preparation is to develop a shape that tapers from apical to coronal, maintaining the original canal shape. This study aims to compare the effects of proafbabygold and kedos rotary files systems on centering ratio and cleaning efficacy. 20 primary molar teeth were selected and was equally divided under 2 groups t.e Group a (pro AF baby gold) and Group B (KEDO s) CBCT images were taken for evaluation of canal centricity. stereomicroscopic evaluation was done for cleaning efficacy. Descriptive and analytical statistics were done using SPSS. The normality of data was analyzed by the Shapiro-Wilk test and independent sample t-test was used. Significant difference was seen in canal centering ratio and cleaning efficacy between the two groups. Pro AF baby gold rotary file system have better cleaning efficacy and canal centering capacity as compared to Kedo s rotary file system.

CBCT analysis of deciduous root canals after instrumentation with different filling systems

Priyanka Singh
Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Aim: To evaluate root canal transportation, centering ability ratio, remaining dentin thickness, dentinal cracks and instrumentation time after instrumentation with different filling systems in root canals of primary teeth by CBCT analysis.
Materials and Methodology: Sixty prepared canals of primary teeth divided into four groups with fifteen canals in each were prepared with NITI K files, Protaper next files, one shape files and wave one files respectively using CBCT scan, the pre and post instrumentation scan was done to obtain images at three level (apical, middle and cervical). the results obtained were statistically analysed using SPSS 21 statistical software version.
Results: Significant statistical difference was found between filling systems.
Conclusion: Wave one file system was found to be faster with much less procedural error and can hence be recommended for shaping root canals of primary teeth.

Oral health status and caries experience in children with attention deficit hyperactive disorder

Jannapureddy Rajasheek
Kamineni Institute of Dental Sciences, Nalgonda, Telangana, India

Presentation Type: Oral
Category: Original Research
Introduction: Attention deficit hyperactive disorder (ADHD) is a common developmental disorder characterised by developmentally inappropriate degrees of impulsivity, inattention and often hyperactivity. Aim: The purpose of present study is to assess and evaluate oral hygiene status and oral hygiene behaviors among children with ADHD and compare it in children without ADHD.
Methods: A total of 34 children of age 6 to 14 years, 17 with ADHD and 17 healthy children as controls were included in study. A visual examination of dental caries was performed and oral hygiene status of these children was determined. The parent/guardian completed a structured questionnaire regarding childs oral hygiene practices and food habits.
Results: Student t-test and chi-square test showed that children with ADHD had significantly higher DMFT scores and incidence of traumatic injuries without significant difference in oral hygiene status.
Conclusion: Caries experience and incidence of traumatic injuries is high in children with ADHD.

Prevalence of spaced and non spaced dentition in 3–5 years old children of Bhavnagar city Gujarat

Hetal J Majeethia
College of Dental Sciences, Ahmedabad, Gujarat, India

Presentation Type: Oral
Evaluation of enamel micro-hardness after the application of four different types of fluoride toothpastes: An in vitro study
Gaurav Hemant Shukla
Pacific Dental College and Research Centre, Udaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research
Introduction: Fluoride toothpastes are one of the most effective cariostatic products when used as daily fluoride application.
Aim: The purpose of this in-vitro study is to evaluate the effect of a new fluoride-containing toothpaste on enamel surface microhardness (SMH).
Methods: This in-vitro experimental study is performed on 40 extracted primary anterior teeth, divided into five groups: Group I: COLGATE® kids, Group II: hello blue kids for children, Group III: cheerio gel, Group IV: Kidodent gel for kids. Micro hardness of tooth enamel was measured utilizing vickers method before and after the use of different fluoride tooth paste.
Results: Enamel microhardness values of Kidodent gel is more than that of other fluoride toothpastes.
Conclusion: It was concluded that there is a significant increase in tooth enamel micro hardness after the application of Kidodent gel.

Comparative evaluation of three obturating materials in primary teeth using CBCT: An in vitro study
V Lahari Reddy
Kamineni Institute of Dental Sciences, Nalgonda, Telangana, India

Presentation Type: Oral
Category: Original Research
Introduction: Success of pulpectomy depends on biomechanical preparation, materials used and obturation quality in primary teeth. Obturation quality usually refers to under/over obturation, presence/absence of voids which can be assessed qualitatively and quantitatively using CBCT.
Aim: To evaluate obturation quality of Zoe, Endoflas® and Metapex® in primary teeth by assessing number of voids.
Methodology: 30 primary teeth were selected and randomly allocated into three groups (n=10) based on obturating material used. Standardised root canal preparation was done using Protaper Nexta® file system followed by obturation using three selected materials using motor driven lentulospirals. CBCT imaging was done to assess quality of obturation, presence and location of voids in the obturation.
Results: Least number of voids was observed in endoflas group followed by Metapex and Zoe groups.
Conclusion: Endoflas demonstrated more number of optimal fills with fewer voids when compared to Zoe and Metapex.

Effective reinforcement schedule of oral health education in visually impaired children
K Saranya
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Presentation Type: Oral
Category: Original Research
Introduction: ATB (audio-tactile-braille) method of oral health education (OHE) is found to be effective in visually impaired children. Timely reinforcement has been recommended by most authors, but little clarity is available on its periodicity.
Aim: To determine the periodicity of OHE reinforcement using ATB model in visually impaired children.
Methodology: Study consisted 79 visually impaired children aged 6-15 years. OHE was done using ATB method at baseline followed by Metapex and Zoe groups.
Results: Least number of voids was observed in endoflas group followed by Metapex and Zoe groups.
Conclusion: Endoflas demonstrated more number of optimal fills with fewer voids when compared to Zoe and Metapex.
by reinforcement at 3 months. Oral hygiene status was assessed using OHI-S at baseline and 3 & 6 months post-reinforcement. Data was analysed statistically. 

**Results:** Statistically significant difference in mean OHI-S was found between baseline and 3 month post-reinforcement (p=0.00) and between 3rd and 6 month post-reinforcement was not significant.

**Conclusion:** Bi-annual schedule of OHE reinforcement using ATB method is effective in visually impaired children.

### Hypnosis: The lost art of green pediatric dentistry

**Bibin Jacob Emmanuel**  
Jaipur Dental College, Jaipur, Rajasthan, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** Hypnosis is one of the oldest and noninvasive ways to control dental anxiety, fear, phobia and anger in children. Hence get a better treatment result and good compliance and satisfaction of the patient.

**Aim:** Efficiency of hypnosis in inducing a positive attitude in children towards treatment and the dentist.

**Methods:** 20 children were selected for the study with their parent consent. Both direct and indirect techniques were used.

**Results:** It was proved that hypnosis had a positive effect on the attitude of the child towards treatment and to the dentist.

**Conclusion:** Hypnosis along with a thorough training and patient selection. Pedodontist can successfully employ it too tame the mind of a child towards the treatment.

### Efficacy of conditioning on anxiety levels in children during nitrous oxide and oxygen inhalation sedation

**Swathi Bandlamudi**  
Sibar Institute of Dental Sciences, Guntur, Andhra Pradesh, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** Nitrous oxide-oxygen inhalation sedation is used in pediatric dentistry to reduce fear and anxiety in children.

**Aim:** To assess the anxiety levels in children and their parents about oral hygiene and health. Night brushing is an important step in prevention of plaque accumulation and caries and is inevitable in maintaining good oral health.

**Methods:** Total 24 children aged 6-12 years who were categorized under ASA I and II and frankel behaviour rating scale 3 and 4 were randomly selected. In group 1 (n=12), for conditioned children the procedure was explained showing a video tape prior to the procedure. Where as in group 2 children, the procedure was directly initiated. Pre and post operative SpO2, blood pressure, pulse rate and child’s behavior were recorded.

**Results:** No statistical significant difference was observed in parameters like SpO2, BP and pulse rate in both groups. However preoperative behavioral variations were noticed in group 2.

**Conclusion:** It is ideal to familiarize the child before induction of NOIS to allay anxiety.

### Prevalence of early childhood caries in 3 to 5 old children of Bhavnagar city: A cross sectional study

**Asna M Isani**  
College of Dental Sciences, Ahmedabad, Gujarat, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** Early childhood caries (ECC) is a significant dental public health problem that affects preschool children all over the world, and there is shortage of epidemiological data regarding ECC in Bhavnagar city.

**Aim:** This study aims to assess the prevalence of ECC among 3- to 5-year-old preschool children in Bhavnagar city.

**Materials and Methods:** A cross-sectional study was carried out among 285 preschool children aged 3 to 5 years in Bhavnagar. Children were randomly selected from preschools of Bhavnagar. Caries experience was recorded using DEFT index.

**Results:** The overall prevalence of ECC was found to be 26.31%.

**Conclusion:** Prevalence of dental caries is high, treatment of dental caries would impose a great financial burden; hence, effective preventive strategies should be developed and implemented. Future health promotion and education programs in preschool should include oral health issues and the risk factors for ECC, and its consequences should be addressed.

### Awareness of night brushing and its importance in oral health among children and their parents in east Bengaluru

**P Akhil**  
MR Ambedkar Dental College, Bengaluru, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** One of the goals of a pediatric dentist is providing awareness among children and their parents about oral hygiene and health. Night brushing is an important step in prevention of plaque accumulation and caries and is inevitable in maintaining good oral health.

**Aim:** To assess the awareness among children and their parents about the importance of night brushing and its significance on oral health in east Bangalore, Karnataka.

**Materials and Methods:** Sample of 300 children was divided into three age range groups and then each group was subdivided into five socioeconomic strata. Separate questionnaires were used to record data from the child and the parent.

**Results:** Night brushing was significantly associated with oral health.

**Conclusion:** Motivation of parents and children about practice of night brushing is important for better oral health.

### Correlation between A, B, O blood group system and dental anxiety in children of age 6–12 years in east Bengaluru

**Swathi Kakathkar**  
M R Ambedkar Dental College and Hospital, Bengaluru, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** Dental anxiety is a term used to describe fear or stress in a dental setting which a pedodontist has to face routinely. Studies have shown that genetics of blood group play an important role in human behaviour.

**Aim:** To assess the correlation between dental anxiety And A, B, AB and O blood groups in children of age 6-12 years in east Bangalore.

**Materials and Methods:** Patients who visited department of pedodontics and required restorative procedures were selected for the study. Blood group of the patient was obtained from past medical records. Dental anxiety was determined using animated EMOJI scale according to their experience while undergoing treatment with Airotor hand piece.

**Results:** A significant positive correlation between certain blood groups and dental anxiety among children was found.

**Conclusion:** Dental anxiety levels also show correlation with different blood groups.

### Effects of laser-assisted fluoride therapy with diode laser and ER, CR: YSGG laser on enamel of primary teeth - An in vitro study

**P Jyothi**  
P Jyothi Dental College and Hospital, Kolar, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research

**Introduction:** Laser assistance is the next step in advancement in dental treatment. Lasers are used in different aspects of dental treatment like caries removal, caries detection, caries prevention and control. Laser-assisted fluoride therapy is also a well-established method.

**Aim:** To evaluate the effectiveness of laser-assisted fluoride therapy with diode laser and Er, Cr: YSGG laser on enamel of primary teeth.

**Materials and Methods:** The study consisted of 30 primary teeth which were divided into 3 groups. Group 1 was treated with Nd: YAG laser, Group 2 was treated with Er, Cr: YSGG laser and Group 3 was treated with diode laser. After treatment, the teeth were subjected to in vitro study.
Aim: To evaluate effect of irradiation with diode laser and ER,C R:YSGG laser before or after 1.23% acidulated phosphate fluoride surface treatment on enamel of primary teeth.

Methods: 48 Enamel samples prepared from intact extracted primary molars were randomly assigned into 6 groups and subjected to SEM “ EDX analysis pretreatment and post treatment to analyze surface changes and uptake of fluoride by the enamel. Acid resistance of the treated enamel was studied and the resultant lesion depth was measured by SEM.

Results: There were significant surface changes in the enamel of primary tooth in all study groups compared to that of control group.

Conclusion: Fluoride uptake of enamel of primary teeth was significantly greater with use of ER,C R:YSGG laser compared to the use of diode laser.

Comparative evaluation of bond strength of cention N and conventional GIC to primary teeth: an in vitro study

Sushmita Pattnaik
Kalinga Institute of Dental Sciences, Bhubaneswar, Odisha, India

Presentation Type: Oral
Category: Original Research

Introduction: Combined applications of laser irradiation and topical fluoride have been reported to have synergistic effects on increase in enamel acid resistance.

Aim: To compare the bond strength of Cention n and conventional GIC.

Materials and Methods: 48 Enamel samples prepared from intact extracted primary molars were randomly assigned into 6 groups and subjected to SEM “ EDX analysis pretreatment and post treatment to analyze surface changes and uptake of fluoride by the enamel. Acid resistance of the treated enamel was studied and the resultant lesion depth was measured by SEM.

Results: There were significant surface changes in the enamel of primary tooth in all study groups compared to that of control group.

Conclusion: Fluoride uptake of enamel of primary teeth was significantly greater with use of ER,C R:YSGG laser compared to the use of diode laser.

A competitive evaluation of the efficacy of various mouthrinses on Streptococcus mutans count in caries active children

Aakansha Sharma
School of Dental Sciences, Greater Noida, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: The prime microbe responsible for causing dental caries is streptococcus mutans, and to reduce their count mouthrinses act as an efficient method of prevention. To ascertain this, three commercially available mouthrinses were evaluated for their antimicrobial activity.

Aim: To evaluate the antimicrobial efficacy of different mouthrinses against streptococcus mutans.

Materials and Methods: Sodium fluoride, chlorhexidine and herbal mouthwash as toothbrush disinfectants against streptococcus mutans.

Aim: To compare the efficacy of 3% neem, 6% triphala over 0.2% chlorhexidine mouthwash as toothbrush disinfectants against streptococcus mutans.

Methodology: Study was conducted in 2 phases, 45 children were randomly divided into 3 equal groups. Each phase was carried out for 14 days, with no disinfection during phase1, and overnight disinfection in respective disinfectant provided during phase 2. Streptococcus mutans colony forming units (CFUS) were compared during both phases.

Results: Statistically significant decline in s. mutans count as compared to herbal rinse.

Conclusion: All the mouthwashes used in the present study have shown a definite reduction in s. mutans count.

Why toothbrush disinfection? Competency of herbal agents over chlorhexidine mouthwash as toothbrush disinfectants

Bhavana Tadikonda
A.J. Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research

Introduction: Toothbrush rinsing, cursory shaking are customary practices post brushing. Toothbrush contamination escalates with continual use due to various factors. Herbal disinfectants decontaminate toothbrush, lessen the chances of reinfection, and diminish concerns about the adverse effects of chemical disinfectants.

Aim: To compare the efficacy of 3% neem, 6% triphala over 0.2% chlorhexidine mouthwash as toothbrush disinfectants against streptococcus mutans.

Methodology: Study was conducted in 2 phases, 45 children were randomly divided into 3 equal groups. Each phase was carried out for 14 days, with no disinfection during phase1, and overnight disinfection in respective disinfectant provided during phase 2. Streptococcus mutans colony forming units (CFUS) were compared during both phases.

Results: Statistically significant reduction of s.mutans CFUS with all disinfectants (P<0.05).

Conclusion: Toothbrush disinfection curtails its contamination, and its regular integration improves health.

Correlation between emotional intelligence and academics achievement of dental students

Shivangi Chandra
Seema Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Abstracts

Category: Original Research
Introduction: Emotional intelligence enables us to recognize their own and others emotions. Many studies have found that emotional intelligence (EI) is related to academic and professional success.
Aim: To evaluate the relationship between the respondents emotional intelligence and their academic achievement.
Methods: A study was being conducted among dental students of our dental college. All students from BDS 1st year to internship had been given a questionnaire fixed to evaluate the emotional quotient given by Sterrett. They were also asked to mention their previous professional academic percentage.
Results: The results of the study reveal that the level of emotional intelligence is decreasing from first year students to intern. Emotional intelligence investigated are found to be significantly and positively associated with the respondents academic achievement.
Conclusion: This study explored that empathy declines as students progress through dental college and so the academic result.

The effect of probiotic lozenges on the saliva and plaque streptococcus mutans levels in 6–12-year-old children with high caries risk: A double blind placebo-controlled trial
Kunal Bhatia
Manipal College of Dental Sciences, Manipal, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Alternative ways to affect the oral ecology have emerged and Objectives: To determine the effect of probiotic lozenges on the levels of streptococci mutans in the saliva and plaque of 6-12 year old children with high caries risk; to determine the effect of probiotics and xylitol lozenges with that of placebo lozenges on the salivary and plaque streptococcus mutans levels.
Methodology: 60 subjects, aged 6-12 years were divided into three groups of 20 subjects each. Baseline levels of s. mutans in their saliva and plaque were obtained, after which probiotic lozenges, xylitol lozenges and placebo lozenges were distributed per group. After 3, 6 and 9 weeks, s. mutans count was done again in the patients plaque and saliva.
Conclusion: S. mutans levels were significantly lower in subjects receiving probiotic and xylitol lozenges.

Correlation of serum ferritin with caries status in children with thalassaemia major in Odisha
Arpita Datta
Institute of Dental Sciences, Bhubaneswar, Odisha, India

Presentation Type: Oral
Category: Original Research
Introduction: Thalassaemia is a single- gene disorder with faulty erythropoiesis, thus needing repeated blood transfusions for maintaining a healthy life which leads to serum ferritin overload with general and oral manifestations.
Aim: to find out correlation between serum ferritin levels and DMFT indices in children aged 8-12yrs with thalassaemia major.
Methods: The cross-sectional study was conducted in Rourkela city, Odisha among 60 children of 8-12 yrs with thalassaemia major. Dental caries was recorded using DMFT index and serum ferritin was assessed through laboratory blood investigations.
Results: A negative relation was observed between serum ferritin level and dental caries. However statistically no significance (p=0.33) could be derived.

Conclusion: Elevated ferritin levels could be relatable to reduced dental caries but further investigations needed to assess its effects on other oral tissues.

The influence of gender, learning preferences and attendance on the academic performance of undergraduate dental students
Urvashi Sharma
Dr. HSJ Institute of Dental Sciences, Chandigarh, India

Presentation Type: Oral
Category: Original Research
Introduction: Students have different learning preferences, affecting the way they perceive, interact with and respond to the learning environment.
Aims: To assess the influence of gender, learning preferences and attendance on academic performance of undergraduate dental students.
Methods: The learning sensory modality preferences of 326 students was assessed by administering the VARK questionnaire (version 7.2). Academic performance and attendance were recorded.
Results: 58% students had a multimodal learning preference. 42% were unimodal, 24.8% quadmodal, 21.8% bimodal and 11.3% were trimodal learners. The mean kinaesthetic/k scores were 7.10±2.60, aural/a scores- 6.14±2.62, read/write/r scores- 4.89±2.30 and visual/v scores- 4.06±2.26 (0.022*). No positive correlation was found between gender, attendance and learning preference and the academic performance. However, difference between assessed and perceived learning was statistically significant.
Conclusions: Gender, attendance and learning preference do not contribute much to academic performance of undergraduate dental students.

Behavior management technique in pediatric dentistry: A comparative study
Gurneet Sadana
Sri Guru Ram Das Institute of Dental Sciences and Research, Amritsar, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Behavior management is an integral part of the dental treatment and is considered to be the main barrier for successful completion of dental treatment. Non pharmacological behavior management techniques are safe, friendly and psychologically prepare children before hand.
Aim: To compare the effect of three behavior modification techniques in child’s anxiety and pain level.
Materials and Methods: For this randomized controlled clinical trial, a total sample of 60 children, 4-8 years of age, visiting dentist were divided into three groups of 20 each. Behavior modification technique was demonstrated by showing modeling technique in group 1, ask-tell-ask technique in group 2 and play therapy in group 3. Each child’s heart rate and pain scale was monitored during treatment.
Results: Play therapy significantly reduces the heart rate and pain followed by modeling and ask-tell-ask technique.
Conclusion: Play therapy reduces anxiety and pain during treatment.

Paving ways toward shining smiles
Biswa Bandita Mohanty
Institute of Dental Sciences, Bhubaneswar, Odisha, India

Presentation Type: Oral
Category: Original Research
Introduction: In past few decades there has been increased parents concern regarding aesthetics of their children’s front teeth. Added
Evaluation of honey as an intracanal medicament in the root canal treatment of permanent teeth
Sourav Bhattacharjee
Institute of Dental Sciences, Bhubaneswar, Odisha, India

Methodology: Questionnaire based survey.
Results: Parents concern about child’s aesthetic rehabilitation in 60% of cases as reported by dentists of which 45% of dentist’s preferred glass ionomer cement and 40% used strip crowns, whereas only 5% of dentists opted for zirconia crowns 67% dentists do not prefer zirconia crowns due to cost factors.
Conclusion: Innovation are required to derive cost effective and aesthetic alternative requiring minimal training to restore and fulfill every child’s right towards healthy smile.

Morphological characteristics and arch dimension in primary dentition of 4 to 6-year-old children in Bhubaneswar
Rajnish Kumar Verma
Kalinga Institute of Dental Sciences, Bhubaneswar, Odisha, India

Methodology: 300 samples comprising of 142 boys and 158 girls were selected for this study. Impression were taken and cast fabricated and various crown dimensions, arch parameters were measured. The data was analysed statistically.
Results: The study showed presence of sexual dimorphism in two gender groups. Significant difference were found between contralateral teeth while comparing mesiodistal and buccolingual dimensions. Intercanine and inermolar width also revealed a significant difference between boys and girls.
Conclusion: It was found that 4-6 years old children in Bhubaneswar had mostly spaced dentition in primary dentition.

Evaluation of honey as an intracanal medicament in the root canal treatment of permanent teeth
Sourav Bhattacharjee
Institute of Dental Sciences, Bhubaneswar, Odisha, India

Methodology: To investigate effectiveness and antimicrobial potential of honey as an intracanal medicament in the RCT of permanent teeth.
Results: 6 out of 10 microbiological samples reported positive on 3rd day, which reduced to 4 and 2 on 7th and 14th day respectively. 3 patients reported moderate post op pain on 3rd day that dropped to nil on 7th and 14th day.
Conclusion: Honey showed promising results as intracanal medicament having antibacterial, analgesic properties.

Evaluation of obturation using two rotary file systems in primary anterior teeth: A comparative clinical study
Vini Joyner
The Oxford Dental College, Bengaluru, Karnataka, India

Methodology: Thirty primary anterior teeth from children aged 3-5 years requiring pulpectomy were randomly assigned to either Kedo-s or hero shaper group, with 15 teeth in each group. Following root canal preparation, the quality of obturation was evaluated. Instrumentation time was also recorded.
Results: Underfilled canals were significantly higher with Kedo-s(66.6%),and overfilling was significantly higher with hero shaper(46.6%)(p< 0.05).
Conclusion: Kedo-s rotary file was effective during root canal preparation of primary teeth with better quality of obturation and reduced instrumentation time.

To evaluate the efficacy of bone graft with PRP and without PRP in bone regeneration in bone defects in children
Anju Yadav
Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, Uttar Pradesh, India

Methodology: Study sample included 22 children divided into 2 equal groups. In the Group a after cystectomy the cystic defect was filled with PRP and bone graft. In the Group b bone graft alone was used. Radiographs were recorded after 1month, 3month, and 5 months interval after surgery to evaluate the defect bone fill in both groups.
Results: Postoperative radiographs in group a showed a significantly greater regeneration of bone as compared to the Group B.
Conclusion: Combination of PRP and B-TCP led to a favorable clinical and radiographic improvements in bone defects.

To determine prevalence of dental anxiety in 4–6year age children in Haryana district through drawing as projective measure
Ankita Yadav
SGT Dental College, Gurugram, Haryana, India

Methodology: Bony defects after the removal of all pathological tissues due to disease process needs application of different biomaterials to enhance the bone regeneration in bone defects in children.
Aims: To evaluate the efficacy of bone grafts with PRP and without PRP in bone regeneration in bone defects in children.
Methods: Study sample included 22 children divided into 2 equal groups. In the Group a after cystectomy the cystic defect was filled with PRP and bone graft. In the Group b bone graft alone was used. Radiographs were recorded after 1 month, 3 months, and 5 months interval after surgery to evaluate the defect bone fill in both groups.
Results: Postoperative radiographs in group a showed a significantly greater regeneration of bone as compared to the Group B.
Conclusion: Combination of PRP and B-TCP led to a favorable clinical and radiographic improvements in bone defects.

Abstracts
Abstracts

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Trauma is the most common cause for morbidity and mortality of children. The past few years have witnessed the increase in accidents and violence in India.

**Aim:** To determine the incidence, etiology and pattern of facial injuries in children of age group 1 to 16 years.

**Methodology:** The records of the patients reported at a tertiary health center with facial trauma were assessed for a year of 2017.

**Results:** Out of 5040 patients reported, 51 patients presented with the chief complaint of facial trauma. The incidence of facial injury in the present study was 1.01%. It was found that the incidence of fall from height for children less than 4 years of age was 58% and was the most common causes of facial trauma followed by road traffic accident in children above 5 years (24%).

**Conclusion:** The pattern of maxillo-facial trauma is influenced by the child’s age.

**The minutiae of pediatric facial injuries: A retrospective study**

**Apurva Mishra**

Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, Uttar Pradesh, India

To study the effect of different non-pharmacological behavior management technique video clippings on the parents and the favoured clip will be applied on the child (between 4-7 years) during treatment.

**Procedure:** A video containing different behaviour management techniques will be shown to the parents who have accompanied the child in the operatory. The parents’ preferred technique will be applied on their child before the planned treatment, after completion of the treatment, a questionnaire will be given to the parent for their feedback, the response to each question will be coded and the values of each code will be analysed statistically. The outcome of the analysis will help us to understand the most preferred behaviour management technique among parents in a pediatric dental set-up.

**Knowledge and awareness of screening and treatment patterns of paediatric obstructive sleep apnea among paediatric dentists in India**

**Suhani R Khanna**

Pacific Dental College and Hospital, Udaipur, Rajasthan, India

**Introduction:** Paediatric obstructive sleep apnea (POSA), considered most severe in the spectrum of sleep-disordered breathing, affects approximately 7 million children worldwide, prompting the medical and dental communities to improve awareness for proper screening, diagnosis and earlier treatment.

**Aim:** To assess the knowledge and awareness of screening, referral and treatment patterns and also educational experience of paediatric dentists in India with regards to OSA.

**Methods:** A multiple choice electronic survey was developed and sent to paediatric dentists registered with Indian society of pedodontics and preventive dentistry. Data obtained was subjected to descriptive analysis.

**Results:** Majority of the paediatric dentists were not comfortable and did not routinely screen for OSA. Most of them received no formal training in OSA during residency.

**Conclusion:** While awareness of OSA is high among paediatric dentists, educational opportunities are limited, routine screening is not standard and dental-based treatment is not commonly provided.

**Role of genetic sensitivity, hormonal fingerprint and parental knowledge about oral health of children on caries risk susceptibility**

**Simran H Dusseja**

Pacific Dental College and Hospital, Udaipur, Rajasthan, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Propylthiouracil (medicated tool), 2D:4D ratio and parental awareness can be used for detection of caries which is most prevalent oral health disease.

**Aim:** To determine the role of genetic taste sensitivity, hormonal fingerprint and parental knowledge about oral health on caries risk susceptibility.

**Methods:** An observational, cross-sectional study done on children aged 6-16 years, using propylthiouracil genetic taste sensitivity test. 2D:4D ratio was obtained by measuring length ratio of index to ring finger. Dietary preferences, DMFT/DEFT indices along with the parental knowledge were recorded.

**Results:** Positive co-relation between non-tasters, low digit ratio, sweet likers, low level of awareness among parents and high caries index was found with a high significant difference.

**Conclusion:** Study confirms impact of hormones on taste, hormonal fingerprint (biological marker) for caries risk susceptibility, need for awareness among parents for prevention of caries.
Factors contributing mandibular anterior crowding in mixed dentition period in Bihar population: An ex vivo study

Aditi Singh Tanwar
Buddha Institute of Dental Sciences and Hospital, Patna, Bihar, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental crowding is a disparity in the relationship between the tooth size and jaw size which results in imbrication and rotation of teeth. Mandibular anterior crowding is one of the most frequent types of malocclusion in children.
Aims: To find out possible factors contributing to mandibular anterior crowding in the mixed dentition.
Methods: Study was carried out on 80 children’s in which mandibular dental cast was obtained from outpatient of department of pedodontics and preventive dentistry.
Results: The results of the correlation analysis indicated significant correlations between crowding and total incisor width and available space. No significant correlation was found between crowding and total arch length, intercanine width, inter molar width i and ii, permanent inter molar width and inter alveolar width.
Conclusion: A thorough knowledge of growth changes during the transition period is important which helps in treatment planning for space management during preventive and interceptive orthodontics.

Comparative evaluation of the surface roughness and wettability of three different composite restorative materials: In vitro study
Shreya Shekhar
Manipal College of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Resin based composites (RBC) have a long-established wide use for restoration of posterior teeth in permanent dentition. Recently a dual cured resin based bulk-fill composite with alkaline fillers, called alkasites was introduced.
Aim: To compare the surface characteristics of three different posterior RBCS after polishing.
Methods: In this in vitro study, three groups namely: Alkasite, bulk fill nanohybrid, and nanofilled composites were compared. 11 disc-shaped specimens of each rbc were fabricated by condensing the material in a single increment into customized metal moulds. After finishing and polishing, the specimens were evaluated using atomic force microscope for surface roughness and contact angle goniometer for surface wettability.
Results and Conclusion: Statistical analysis showed a significant difference between the composites for surface roughness but not for surface wettability with the alkasite material showing least surface wettability but high surface roughness.

Learn and fun, get the treatment done...
Asma Ansari
RKDF Dental College and Research Centre, Bhopal, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Fear and anxiety are the two most stressful situations and management of such stressful situations can be dealt by different BMT’s. Though literature quotes a number of BMT’s, still there is a need to revise existing techniques.
Aim: To evaluate behavior management by using charts and models on various dental treatment procedures.
Methods: Ten children aged 4-7 years were selected for this study. The treatment procedures were explained to patients through charts & models before initiating the treatment.
Results: Our study showed a definite lower values of the included parameter, indicating success of these charts & models.
Conclusion: Therefore, charts & models are effective tools in behavior modification and can be used for various dental procedures in all age groups.

Evaluation of the attitude of postgraduate students towards treatment of children with special health care needs
Charisima Thimmaiah
MCODS, Manipal, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Successful endodontic treatment aims at total disinfection. Different intracanal irrigants have been proposed for primary teeth, such as NAOCL, CHX, MTAD and others. Considering the ineffectiveness, potential side effects and safety concerns of synthetic irrigants used, natural alternatives for endodontic usage might prove to be advantageous.
Aim: Propolis as a natural alternative against enterococcus faecalis.
Methodology: Raw propolis procured from Kodagu district was evaluated for phytochemical analysis, bactericidal activity (MIC, MBC) against enterococcus faecalis. And antioxidant property in triplicates.
Results: Propolis possesses a good antimicrobial activity against enterococcus faecalis. With MIC 750 Âµg/ml and MBC 1250 Âµg/ml. It also exhibited good radical scavenging activity against DPPH and ABTS with percentage scavenging ability corresponding to 50% and 38% equivalent to ascorbic acid and gallic acid.
Conclusion: Propolis found to be a promising therapeutic alternative against enterococcus faecalis which might be due to its diverse composition.

Natural antimicrobial agent against Enterococcus faecalis
Brinda Suhas Godhi
JSS Dental College and Hospital, Mysore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Fear and anxiety are the two most stressful situations and management of such stressful situations can be dealt by different BMT’s. Though literature quotes a number of BMT’s, still there is a need to revise existing techniques.
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Digital radiomapping in age determination: Role in pediatric radiography
Parkhi Bhatnagar
Abstracts

Jaipur Dental College, Jaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research

Introduction: The determination of age plays a significant role in children and as a pedodontist it is important to be well versed with age factors of children, so assessment has to be done with time.

Aim: Comparison of dental age and chronologic age of children of age group 6-8 years.

Methods: For examination of teeth digital radiography is used for determination along with the following measurements “ maximum tooth length, pulp length, root length on mesial side, pulp width at cemento enamel junction, mid root level and mid point of both, and root width.

Results: The results showed a considerable significance of age estimation for permanent teeth. The measurement of teeth was estimated which showed significant changes in the method of estimation on this method.

Conclusion: Kvaal’s method is a volume assessment of teeth which takes pulp to tooth ratio for accurate examination.

Eco-friendly dentistry: Helping environment go green
Shivangi Verma
Peoples Dental Academy, Bhopal, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: It is an environmental friendly way of practicing dentistry- reduce wastage, conserve energy & decrease pollution. This paper attempts to bring about awareness regarding eco-friendly dentistry among the dentist of Bhopal city.

Aim: To study the present awareness of Eco-friendly dentistry among dental practitioners in Bhopal city.

Methods: A cross sectional study to assess knowledge, attitude & practice regarding eco-friendly dentistry was done using a prevalidated questionnaire among 200 dentists in Bhopal city using chi square test.

Results: More number of questions related to practice of eco-friendly dentistry depicted significant difference compared to questions related to knowledge and attitude among post-graduates, PG students & graduates.

Conclusion: We being a part of the system responsible for spreading smiles, its time for us to make dental practice ecofriendly and help our environment go green & clean.

Cariogenic potential of infant formulas commercially popular in Jabalpur city: An in vitro study
Asth Soni
Hitkarini Dental College and Hospital, Jabalpur, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: Infant formula, commonly used as supplements for breast milk, could act as a favourable substrate and change the oral microflora.

Objectives: To compare cariogenic potential of milk and infant formulas processed with RO water and comparing pH changes after consumption.

Methods: Specimens of sweetened milk and infant formulas (IF) were inoculated with streptococcus mutans (SM) and divided into, one cultured immediately on mitis salivarius agar (t0) and another cultured after incubation AT 37Â°C for 4 hours (T4). CFU of SM, PH changes were measured at T0 and at T4.

Results: Sharp pH fall in sweetened milk was observed. The pH was lower at t4 than t0 in both if, but not significantly. The SM colonies increased significantly at t4 compared to T0.

Conclusion: In diet counseling procedures, we recommend usage of various infant formulae, but lactogen 2 should be given preference.

The knowledge, attitude, practice and uses of articaine among pedodontics in India
Dhanalakshmi
Meenakshi Ammal Dental College and Hospital, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research

Aim: This study aimed to find the knowledge, attitude and practise of dental practitioners using devitalising agents.

Methodology: A total of 100 practising dentists were randomly given an online questionnaire consisting of 12 questions. The questions were designed to cover different aspects of use of devitalising agents. The collected data was subjected to statistical analysis.

Results: 97% Of the respondents use devitalising agents in their clinical practise. 56.7% of them use devitalising agent in the management of primary teeth. 84.5% did not observe any post operative complications.

Conclusion: It can be concluded that dental practitioners do use devitalising agents inspite of possessing knowledge related to its complications.

Knowledge, attitude and practise of dental practitioners using devitalising agent in routine clinical practise
Manisha Sharma
GDC, Patiala, Punjab, India

Presentation Type: Oral
Category: Original Research

Introduction: Management of pulpally inflamed pulp in a child is a challenging procedure. Poorly managed pain control causes anxiety and fear in a child creating a negative response towards the dental treatment.

Aim: To handle such challenges, clinicians use devitalising agents to create a positive overall clinical experience.

Methods: Three experiments were conducted to assess the classical the determination of age plays a significant role in children and as a pedodontist it is important to be well versed with age factors of children, so assessment has to be done with time.

Aim: Comparison of dental age and chronologic age of children of age group 6-8 years.

Methods: For examination of teeth digital radiography is used for determination along with the following measurements “ maximum tooth length, pulp length, root length on mesial side, pulp width at cemento enamel junction, mid root level and mid point of both, and root width.

Results: The results showed a considerable significance of age estimation for permanent teeth. The measurement of teeth was estimated which showed significant changes in the method of estimation on this method.

Conclusion: Kvaal’s method is a volume assessment of teeth which takes pulp to tooth ratio for accurate examination.

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Methods: Three experiments were conducted to assess the classical the determination of age plays a significant role in children and as a pedodontist it is important to be well versed with age factors of children, so assessment has to be done with time.

Aim: Comparison of dental age and chronologic age of children of age group 6-8 years.

Methods: For examination of teeth digital radiography is used for determination along with the following measurements “ maximum tooth length, pulp length, root length on mesial side, pulp width at cemento enamel junction, mid root level and mid point of both, and root width.

Results: The results showed a considerable significance of age estimation for permanent teeth. The measurement of teeth was estimated which showed significant changes in the method of estimation on this method.

Conclusion: Kvaal’s method is a volume assessment of teeth which takes pulp to tooth ratio for accurate examination.

Knowledge, attitude and practise of dental practitioners using devitalising agent in routine clinical practise
Manisha Sharma
GDC, Patiala, Punjab, India

Presentation Type: Oral
Category: Original Research

Introduction: Management of pulpally inflamed pulp in a child is a challenging procedure. Poorly managed pain control causes anxiety and fear in a child creating a negative response towards the dental treatment.

Aim: To handle such challenges, clinicians use devitalising agents to create a positive overall clinical experience.

Methods: Three experiments were conducted to assess the classical the determination of age plays a significant role in children and as a pedodontist it is important to be well versed with age factors of children, so assessment has to be done with time.

Aim: Comparison of dental age and chronologic age of children of age group 6-8 years.

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Results: The results showed a considerable significance of age estimation for permanent teeth. The measurement of teeth was estimated which showed significant changes in the method of estimation on this method.

Conclusion: Kvaal’s method is a volume assessment of teeth which takes pulp to tooth ratio for accurate examination.
Abstracts

Introduction: The study concluded that jean Piaget’s principles are still valid today.

With only little saliva swab: Get the future of healthcare today

Prabhlad Gadicherla
Faculty of Dental Sciences, Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
The aim of the study is to evaluate the inorganic constituents, enzyme activities & microbial community composition at species level of saliva in children with intellectual deficiency. Children were selected by a random sampling procedure & saliva collected. Inorganic constituents were analyzed by atomic absorption spectrometry. DNA quantification was done. PCR was performed on isolated DNA. Sequencing was performed on minion (oxford nanopore technologies) & microbial diversity was measured results show that decreased levels of no, amylase activity was higher, concentration of inorganic phosphate and magnesium was highest in autistic group of children. The results suggest that species level oral microbial community composition may be responsible for disease severity in this population interestingly, streptococcus mutans composed a relative minority of the total bacteria sampled. Biofilms with greater abundance of veillonella have greater acidogenic potential. Members of the genus lactobacillus were detected at very low levels.

Quest for best: Search goes on....

Shruti Singh
Subharti Dental College, Meerut, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Quest for newer materials to overcome pitfalls of Zoe has lead to the introduction of Metapex and Endoflas with unique property of ability to resorb material extruded beyond apex.
Aim: To evaluate clinical and radiographic success of Zoe, Endoflas and Metapex.
Methods: Pulpectomy was carried out in 45 primary molars of children aged 4-9 years. Three groups of fifteen teeth each were obturated with Zoe, Endoflas & Metapex. Evaluation was done at 3, 6, 12 months. Statistically analysis was done.
Results: Overall clinical success for Group I, II, III was 100%, 100% and 86.6% respectively while radiographic success of Group I,II and III was 93.3%, 93.3% and 60% respectively at the end of 18 months. Overfilling and voids were more commonly seen in teeth filled with Metapex.
Conclusion: Endoflas can overcome pitfalls of traditional materials.

ICCMSa-e, a global collaboratory for caries management: Prospective observational study for paediatric dental patients in early mixed dentition

Srishti Singh
Faculty of Dental Sciences, Institute of Medical Sciences, Varanasi, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: The international caries classification and management system (ICCMSTM) is a step-by-step protocol that helps in managing the clinical data systemically and its analyzing to frame individualised patient care plans.
Aim: 1. To assess effect of ICCMS implementation on control of existing lesions and to observe development of new lesions during early mixed dentition.

Method: Methodology of ICCMS pathways foundation based on five keystones. 1) Staging of carious lesion, 2) Caries risk factors assessment, 3) Decision matrices for diagnosis. 4) Comprehensive patient management plan, 5) Outcomes of caries management using ICCMSa.e. enrolled patients (n=35) were followed up for one year under all these steps.
Results: All patients demonstrated significant disease control in terms of new lesions, progressed and arrested lesions.
Conclusion: ICCMS was effective is controlling caries progress in mixed dentition cohort observed.

Effect of feeding and oral hygiene practice in early childhood caries in Hadoti region: A cross-sectional survey

Shiwani S Detha
Daswani Dental College and Research Centre, Kota, Rajasthan, India

Presentation Type: Oral
Category: Original Research
Background: Early childhood caries (ECC) is most prevalent diseases in children, driven by a dysbiotic state of oral microorganisms caused by frequent sugar-rich diet intake and poor oral hygiene leading to its rapid progression. ECC leads to dental destruction and pain affecting the quality of life of both child and caregivers which can be ward off.
Aim: To investigate the effect of feeding and oral hygiene practice in emergence of early childhood caries in Hadoti region.
Methods: A cross-sectional survey is going on 300 preschool children of 36-71 months randomly selected from a high and low socioeconomic strata. Information regarding frequency of feeding and oral hygiene is obtained through a structured questionnaire. Clinical examination is preformed on children with ECC and their DMFT scores is recorded.
Results and Conclusion: Statistical analysis will be obtained and conclusion will be derived after the completion of the survey.

Correlation of parenting style with children’s ability to cooperate in dental office

T Shannmuga Priya
Chettinad Dental College and Research Institute, Kanchipuram, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Introduction: Being a successful parent is no small feat and the children’s socializing skill depend on a variety of environmental and biological factors. The variability in parents’ attitude towards their children influences the child’s behavioral outcome in numerous ways.
Aim: The aim of this study was to find out, how the parenting style affect the child’s ability to cooperate in dental office.
Methods: The study involves 30 children who were given a questionnaire on parental behavior towards their children and the responses were recorded and analyzed.
Results: 70% of children were cooperative out of which 20% of them had authoritative parents and remaining permissive parents.
Conclusion: From this study, it is concluded that the child’s behavior does not depend only on parenting style but also on other factors like environment and dentist’s attitude.

Paediatrician --> paediatric dentist; together we can

Sneha Shah
A.J. Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Abstracts

**Background**: Paediatricians can educate the parents about early oral preventive care, identify and prevent further progression of any dental problems.

**Aim**: To elicit the knowledge of paediatricians about: 1) Oral hygiene measures after prescribing sugar/sugar-free syrups. 2) Including dental aspect as a part of general health check-up. 3) Referring the patient to a paedodontist for further evaluation. Study design: a comprehensive questionnaire with 10 questions was prepared and provided to 50 paediatricians in mangalore. The questionnaire had questions to assess the knowledge about dental caries, habits and overall oral health, attitude and awareness towards its prevention and practice guidelines and opinions.

**Results**: Out of 50 paediatricians, 72% do not give oral hygiene measures after syrups and are unaware of sugarfree syrups, 68% do not include dental aspect as a part of general health check-up and 70% do not refer a child to a paediatric dentist.

**Comparative evaluation of plaque effectiveness of manual and chewable toothbrush in blind children: an in vivo study**

**Devendra Prapat M Singh**
Bharati Vidyapeeth Dental College and Hospital, Navi Mumbai, Maharashtra, India

**Presentation Type**: Oral
**Category**: Original Research

**Aim and Objective**: To assess and compare the plaque removal effectiveness of chewing brush and manual brushing.

**Materials and Methodology**: Blind children with age group between 7-10 were selected in a single blinded study. For baseline, disclosing solution was applied and Turesky modification of Quigley Hein index (TQHI) plaque index and simplified oral hygiene index were recorded. The subjects were randomly divided into manual brushing and chewing brush groups and were instructed to use their respective brushes for a period of 1 week. For statistical comparison, the difference (prebrushing minus postbrushing) average score were calculated and evaluated using independent t test.

**Results**: The experimental chewing brush group was effective in removing a significant amount of plaque especially from lingual surfaces.

**Effectiveness of a lecture based educational module in improvement and retention of parental knowledge regarding infant oral health care**

**Dipti Dilip Gholap**
Dr. D.Y. Patil Dental College and Hospital, Pune, Maharashtra, India

**Presentation Type**: Oral
**Category**: Original Research

**Introduction**: Childrens overall health is significantly influenced by their oral health status. Since parents are primarily responsible for their infants oral health, a lot depends on their beliefs, attitude and knowledge regarding the same. Thus, it becomes important to develop educational tool for parents, which could make significant contribution towards improving oral health.

**Aim**: To test the effectiveness of lecture based educational module in improvement and retention of parental knowledge regarding infant oral health care.

**Methodology**: 108 parents of infants up to 12 months of age reporting to the department were selected. The questionnaire was filled at baseline, immediately after education module and after 3 months by the parents. Parental responses at three-time intervals were recorded and tabulated.

**Results**: Lack of basic knowledge and attitude towards infant oral health care.

**Conclusion**: The lecture based educational module is effective in improvement of parental knowledge regarding infant oral health.

**Tag! You’re rough**

**Manasi Kenjale**
Bharati Vidyapeeth Dental College and Hospital, Pune, Maharashtra, India

**Presentation Type**: Oral
**Category**: Original Research

**Introduction**: Caries in posterior teeth are primarily because of retentive pits and fissures so sealants penetrate the fissures and seal them from the environment and prevent decay. Doing enameloplasty widens the fissures and increases the penetration and retention of sealants. This can be done by fissurotomy burs and ultrasonic tips.

**Aim**: To assess the enamel surface roughness and extent of resin tags after enameloplasty and pit and fissure sealant application using ultrasonic oscillating tips and conventional low speed burs in extracted teeth by a stereomicroscope.

**Methods**: Enameloplasty will be done in the samples by ultrasonic tips and high-speed rotor after which they will be sectioned bucco-lingually and examined under a stereomicroscope to assess the enamel surface roughness. Pit and fissure sealant will be applied to the samples and then examined under a stereomicroscope to check the extent of resin tags.

**Results**: The study is in progress.

A comparative evaluation of the effectiveness of three anesthetic gels in reducing pain during administration of local anesthesia. “A randomized double-blind clinical trial”

**Piyush H Kalsariya**
Darshan Dental College and Hospital, Udaipur, Rajasthan, India

**Presentation Type**: Oral
**Category**: Original Research

**Aim**: To assess and compare the efficacy of different topical anesthetic agents on needle insertion pain during administration of IANB.

**Materials and Methods**: The study included 60 children of age 4 to 8 years which were divided into three groups: Group-a (20% benzocaine), group-b (5% lidocaine) and group-c (2% lignocaine). Topical anesthetic gel was applied prior to administration of IANB. After that 1.2ml of local anesthetic agent was administered. The response of child was constantly observed during administration of LA. Each participant was advised to choose emoticon that quantify the pain perception using modified Wong Beker pain rating scale. The ratings were subjected to statistical analysis.

**Results**: Results showed highly significant difference between the topical anesthetic effectiveness of all the groups. The topical anesthetic effectiveness on needle insertion pain of 20% benzocaine is highest followed by 5% lidocaine and 2% lignocaine.

**Evaluating the effect of combined medication on the surface texture of enamel surface by scanning electron microscope: An in vitro study**

**Subhash Upadrasta**
Department of Pediatric and Preventive Dentistry, Nair Hospital Dental College, Mumbai, Maharashtra, India

**Registration**: TR0989

**Presentation Type**: Oral
**Category**: Original Research

**Introduction**: Teeth undergo a combined process of demineralization and re mineralization when subjected to different media, which may lead to changes in their structure and composition.
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**Methods:** The study comprised of 12 enamel slabs obtained from human primary teeth divided into two groups of 6 enamel slabs in each. First group: enamel slab emersed in syrup Mox followed by syrup ibugescic plus for 5 minutes. Second group: Enamel slab emersed in syrup Mox followed by syrup ibugescic plus and finally gelusil for 5 minutes. The surface texture of teeth were analyzed using scanning electron microscope (SEM).

**Results:** Significant changes in the surface texture of the enamel surface can be seen.

**Conclusion:** Oral suspension of antacid can aid in preventing enamel demineralization by neutralizing the acidic pH of routinely prescribed medication.

**Hold the fill, or let it spill? “effectiveness of a PowerPoint presentation towards infant oral health care for expectant mothers”**

**Chahita Mahesh Lalchandani**
RUHS College of Dental Sciences (Government Dental College Jaipur), Jaipur, Rajasthan, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** Mothers play a crucial role in developing and maintaining their infant's oral health care will be beneficial in reducing the burden of dental caries in children.

**Aim:** To evaluate the effectiveness of a PowerPoint presentation in increasing awareness towards infant oral health care practices among expectant mothers.

**Methodology:** This was a cross-sectional study carried out among pregnant women. A questionnaire was completed immediately before and after a PowerPoint presentation based on infant oral hygiene for caregivers. The participants completed the questionnaire twice (pre-post test design) in the same visit.

**Results:** There was a statistically significant difference between the results of the pre and post presentation questionnaire among the participants.

**Conclusion:** This study demonstrated the effectiveness of a PowerPoint presentation in improving the oral health knowledge of expectant mothers to care for an infant.

**Comparative evaluation of antimicrobial efficacy of probiotics, cell free supernatant of probiotics, silver nanoparticles and sodium hypochlorite against Enterococcus faecalis: An in vitro study**

**S Elango**
Rajah Muthiah Dental College and Hospital, Annamalai University, Cuddalore, Tamil Nadu, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** Probiotics are living organisms, principally bacteria which when administered in adequate amounts confer beneficial health effect, beyond the basic nutrition to the host.

**Aim:** To evaluate and compare antimicrobial efficacy of probiotics, cell free supernatant of probiotics, silver nanoparticles and NAOCL against E. faecalis.

**Methodology:** Inoculum was prepared by using E. faecalis strains on sterile broth. Effectiveness of the test groups probiotic solution, cell free supernatant of probiotic solution, silver nanoparticles, 5.25% NAOCL (positive control) and distilled water (negative control) was determined and compared against E. faecalis by well diffusion method.

**Results:** NAOCL showed the highest zone of inhibition in the present study. Cell free supernatant and probiotic was also determined to be effective against E. faecalis.

**Conclusion:** Probiotics and its derivatives were determined to have an antagonistic effect on the growth of E. faecalis and therefore hold promising potential for use as an endodontic irrigant.

**Determining the efficacy of obturation techniques in primary teeth using cone beam computed tomography:**

**An in vivo study**

**Sumaiya, Anju Jha**
Nalanda Medical College and Hospital, Patna, Bihar, India

**Presentation Type:** Oral

**Category:** Original Research

**Study was carried out in primary molars, indicated for pulpectomy among the childrens of 4-8 years and were obturated using lentulo spirals & skini syringes with NAVI tip and further evaluated postoperatively using CBCT for the quality of fill.**

**Results:** A significant difference in result was obtained between the two techniques which showed NAVI tip was a better technique when compared to lentulo spiral with p-value =0.05.

**Conclusion:** Both techniques can be used for obturating the root canals of primary molars; however voids were observed with both technique but minimal with Skini syringes.

**Assessment of class 2 restoration using t band matrix and fendermate**

**Neha Elizabeth Stephen**
Ragas Dental College and Hospital, Chennai, Tamil Nadu, India

**Presentation Type:** Oral

**Category:** Original Research

**Study was carried out in primary molars, indicated for pulpectomy among the childrens of 4-8 years and were obturated using lentulo spirals & skini syringes with NAVI tip and further evaluated postoperatively using CBCT for the quality of fill.**

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**In vitro evaluation of bromelain enzyme for its effective hybridization after deproteinizing dentin among two resin based restorative materials: A microleakage study**

**N Anushaa**
Rajah Muthiah Dental College and Hospital, Annamalai University, Cuddalore, Tamil Nadu, India

**Presentation Type:** Oral

**Category:** Original Research

**Introduction:** Microleakage is defined as the clinically detectable passage of bacteria, fluids, molecules or an ion between a cavity wall and the restorative materials applied to it and its major problem in clinical dentistry.

**Aim:** To assess the deproteinizing property of bromelain enzyme and evaluating its potential in reducing the microleakage among esthetic restorative.

**Materials and Methods:** Class V cavities were prepared in forty freshly extracted premolars and were randomly divided into four groups as
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test and control to receive microfilled and nanohybrid composites and microleakage was assessed using stereomicroscope in occlusal and cervical wall.

**Results:** The cavities filled with conventional composites showed higher microleakage than nanohybrid composites. The cervical margin showed microleakage scores than occlusal margin and after bromelain application microleakage was reduced in both groups.

**Conclusion:** Bromelain enzyme can be used to enhance the longevity of the restorative materials.

**“Inception for interception”**

Khushboo

Dr. R. Ahmed Dental College and Hospital, Kolkata, West Bengal, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Malocclusion is one of the most significant oral health problem among children and young adults that leads to social stigma and psychological disorders. Early orthodontic treatment for children appear to be an efficient method to prevent its consequences.

**Materials and Methods:** A questionnaire pilot survey was conducted (manual and online) to evaluate the knowledge, attitude and awareness about orthodontic problems in developing dentition, among 20 practitioners in our institute. Questionnaire consist’s of 15 questions related to developing malocclusion. The actual survey is still under procedure.

**Results:** After computing the data, the knowledge level among the study participants was moderately satisfying.

**Conclusion:** Yet more study sample needed to come to the actual conclusion.

**Evaluation of depression in mothers of specially abled children and its effect on their oral health**

Rupali Patil

Post Graduate Research Centre, SMBT Dental College and Hospital, Sangamner, Maharashtra, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Mother is considered to be the first mentor for her child. They face varied emotional stages of disturbances.

**Aim:** To evaluate depression in mothers of specially abled children and its effects on their oral health.

**Methodology:** A study was conducted in 30 specially abled children and their mothers. In children daily tooth brushing frequency, DFT/DMFT values and their oral hygiene status was evaluated. Depressive maternal symptoms were measured by “the centre for epidemiologic studies depression scale” questionnaire in 3 phases.

**Results:** Their was positive correlation between maternal depression and oral health status of special children.

**Conclusion:** Mothers of special children should be referred for psychiatric consultation to be supported in the process of accepting and raising them. Hence general and oral health of children can be maintained.

**Comparision of nollas norms for tooth maturation in North Indian population: An original research**

Harsh Vijay Singh

University College of Medical Sciences, Delhi, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Age is not just a number in medicolegal cases and formulating treatment plans. Nolla’s norms for tooth maturation stage may vary in different populations.

**Aims:** To compare and evaluate the applicability of Nolla’s method of staging in North Indian population.

**Methods:** A cross sectional study was done on 180 subjects aged 10 to 15 years. Permanent mandibular second molar was chosen as an alternative to whole arch for age estimation that used radiovisiography instead of high radiation extraoral projections. Nollas method was used to stage the tooth for each age group and the mean was compared with his norms.

**Results:** Both sexes initially lagged behind in dental stage assessment as per Nollas stipulated norms for American population. Thereafter, they not only caught up but also surpassed them.

**Conclusion:** Results may help explain the late onset puberty in Indians and to derive population specific norms for tooth maturation.

**Comparative evaluation smear layer removal efficacy of Neem leaf extract and propolis when used as endodontic irrigants - an in vitro SEM study**

Rita Setia

Dasmesh Institute of Research and Dental Sciences, Faridkot, Punjab, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Beside being safe and biocompatible, natural products have an added advantage due to its antioxidant, anti-inflammatory, antibacterial properties over the synthetic root canal irrigants.

**Aim:** The purpose of this study was to assess and compare the smear layer removal efficacy of neem leaf extract and propolis when used as endodontic irrigants using scanning electron microscope.

**Methods:** Freshly extracted premothers were collected and working length was determined. After instrumentation each canal was irrigated with their respective irrigating solutions as follows: Group 1 - saline (as control), Group 2 - neem leaf extract, Group 3 - propolis. Each tooth was split into two halves and prepared for examination under scanning electron microscope.

**Results:** The data obtained was statistically analysed and compared.

**Conclusion:** Neem leaf extract show high smear layer removal efficacy.

**Does the extent of prevalence of early childhood caries (early childhood caries) vary between right and left side?**

R Bhavyaa

Sri Ramachandra Dental College and Hospital, Chennai, Tamil Nadu, India

**Presentation Type: Oral**

**Category: Original Research**

**Introduction:** Early childhood caries (ECC) is a common public health issue.

**Aim:** To assess variations in prevalence and extent of ECC on the right and left side from the registry of centre of early childhood caries research (CECCRE).

**Materials and Methods:** A cross-sectional study was carried out with data of 500 children screened at CECCRE. The data consist of dental caries recorded using international caries detection and assessment system (ICDAS) criteria. Data was analyzed using Wilcoxon test to determine difference between the extent of caries involvement and number of surfaces involved on right and left side. Mann–Whitney test determined their association with age.

**Results:** Prevalence of number of teeth involved on the right and left side was 35.8% and 34% respectively with significant results on comparison (P=0.033)

**Conclusion:** ECC prevalence and extent is more on the right than left side.

**Antibacterial efficacy of photodynamic therapy in pit and fissures sealants of permanent molars**
Prachi Arora
ITS Dental College, Hospital and Research Centre, Noida, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: The pits and fissures of molars are retentive areas for food debris and dental plaque, these areas are at increased risk for development of dental caries because of their complex nature.
Methods: PIT and fissures of permanent molars were screened and randomly divided into four groups. Group 1: control. Group 2: PDT with 0.1% methylene blue. Group 3: PDT with 0.2% methylene blue. Group 4: PDT with 0.3% methylene blue. All the groups samples will be collected with sterile paper points and will be transferred to glucose broth for microbiological evaluation.
Results: Group 2, 3, 4 have significantly better results than Group 1.
Conclusion: Photodynamic therapy has significant antibacterial effect in primary molars.

Comparative evaluation of instrumentation time, obturation time and radiographic quality of obturation using two rotary systems and manual technique for primary molar pulpectomies: in vivo study
Heeral Sureshkumar Shah
Dr. D.Y. Patil Dental College and Hospital, Pune, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Ideal pulpectomy for primary dentition demands fast and simple procedures, with short treatment times. Recently, exclusive pediatric rotary files are available for use in primary teeth. There is paucity of literature on clinical efficacy of these files. Hence, this study was planned to evaluate and compare pediatric rotary files and k-files.
Aim: To evaluate and compare instrumentation time, obturation time and radiographic quality of obturation using rotary systems (Kedo−S; Pro−AF baby gold files) and manual (k-files) technique in primary molar pulpectomies.
Methodology: 45 children aged 5-9 were selected. Single visit pulpectomy was performed after dividing teeth into three equal groups: I- K-files II- kedo−s files III- Pro−AF baby gold files.
Results and Conclusion: Kedo−S (II) files required least instrumentation time followed by Pro−AF (iii) and K-files (i). Superior quality of obturation in lesser time was achieved using Pro−AF files (iii) followed by Kedo−S (ii) and K-files (i). Pediatric rotary files are efficient alternatives to hand instrumentation.

Comparative evaluation of remineralizing potential of two commercially available agents by assessing the change in calcium and phosphorus concentration and surface roughness in enamel of primary teeth: in vitro study
Smital Agarwal
Dr. D.Y. Patil Dental College and Hospital, Pune, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Remineralizing agents are blessing for early caries management. nanohydroxyapatite being natural tooth product can be best replacement for lost enamel. Newly available Apagard®- APA kids toothpaste needs to be evaluated for its benefits and efficacy as remineralizing paste.
Aim: To compare CPPACPF and NHA by assessing change in calcium and phosphorus concentrations and surface roughness in enamel of primary teeth.
Methods: 26 Teeth for surface roughness and 64 teeth for change in mineral content were collected and divided into two groups, Recaldent®-Ccppacpf and Apagard®-NHA. All the samples were demineralized to create artificial carious Lesions. Pastes were applied to samples for 7 days. Baseline, pre and post remineralization values were measured for surface roughness using profilometer and mineral gain by spectrophotographic method.
Results: Apagard group had higher mineral gain than recaldent and were equally effective in reducing the surface roughness.
Conclusion: Apagard® is better remineralizing agent than Recaldent®.

Effect of visible light curing on silver diamine fluoride: An in vitro study
Sinika Khanchandani
Nair Hospital Dental College, Mumbai, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Silver diamine fluoride (SDF) has been used to arrest dental caries since 1970s. SDF is found to increase the microhardness of dental tissues to a depth of 150 ÅM. Various authors have mentioned the use of light cure after SDF application, but its effect on action of SDF remains unclear.
Aim: To assess the effect of visible light curing on the penetration of silver diamine fluoride.
Methods: The study consisted of two groups each containing 11 samples of carious dentin. Group 1- control group treated with only SDF; group 2- SDF followed by light curing. Samples were then sectioned longitudinally and subjected to SEM.
Results: There was a difference in the penetration of SDF between the two groups.
Conclusion: The beneficial effects of light curing on SDF should be utilised to improve its properties.

Comparison of apical seal in primary teeth obturated with zinc oxide Eugenol and Metapex by scanning electron microscope: An in vitro study
Karun Dinesh Banthiya
Nair Hospital Dental College, Mumbai, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: The apical seal and adaptation of obtrurating materials in primary teeth, which has never been investigated, is significant as any leakage and subsequent failure can have a direct effect on the success of treatment. The apical seal which seems adequate on an intra oral periapical radiograph (IOPA), may actually consist of voids and poor adaptation three dimensionally.
Aim: To evaluate the apical sealing ability and adaptation of zinc oxide eugenol (Zoe) and metapex used as an obtrurating material in primary teeth.
Methods: The study comprised of two groups each containing 11 samples of human primary teeth with 44 root apices. The teeth after biomechanical preparation were obturated either with Zoe or Metapex which were then analyzed using scanning electron microscope.
Results: Zoe demonstrated better adaptation and lesser voids as compared to Metapex.
Conclusion: Difference in the sealing abilities of the two materials is probably due to their composition, viscosity and physical properties.

Comparative evaluation of the remineralizing potential of silver diamine fluoride and fluoride varnish on the enamel surface of young permanent teeth: An in vitro study
Samarpreet Kaur
Mesh Institute of Research and Dental Sciences
Presentation Type: Oral  
Category: Original Research  
Introduction: Most common approach in caries prevention is the use of fluoride-based products.  
Aim: Purpose of this study was to compare the effect of silver diamine fluoride and fluoride varnish on enamel resistance to demineralization in young permanent teeth in vitro.  
Methods: Caries free teeth were selected for this study. Enamel blocks were prepared from intact buccal surfaces of the crown portion of each selected tooth and mounted in acrylic resin. Baseline surface microhardness for all specimens was recorded and samples were randomly and equally distributed into groups based upon the materials used i.e. Silver diamine fluoride, fluoride varnish and distilled water (control group). Samples from each group were then subjected to pH cycling regime and surface microhardness was determined again.  
Results: Results were statistically analysed and compared.  
Conclusion: Silver diamine fluoride group showed more resistance against mineral loss as compared to fluoride varnish group.

Assessing parental attitude towards child’s oral health - ““switch the rail to the right lane””

Anupama  
RUHS College of Dental Sciences (Government Dental College Jaipur), Jaipur, Rajasthan, India

Presentation Type: Oral  
Category: Original Research  
Assessing parental attitude towards child’s oral health care - ““switch the rail to the right lane””  
Objective: To assess the effectiveness of audiovisual aid in assessing parental attitude towards child’s oral health.  
Methodology: A cross sectional study was conducted by comparing results of questionnaire before and after presentation.  
Results: There was significant difference in attitude of parents.

Comparative evaluation of the extent of cervical white spot lesions in primary teeth before and after rubber dam isolation

Agrima agarwal  
Nair Hospital Dental College, Mumbai, Maharashtra, India

Presentation Type: Oral  
Category: Original Research  
Cervical white spot lesions which are representative of incipient caries often go undiagnosed and are ignored. Gingival retraction due to rubber dam isolation has shown that these lesions often extend subgingivally. Hence, proper isolation is imperative for complete diagnosis and management of such incipient lesions.  
Aim: To do a comparative evaluation of the size of cervical white spot lesions in primary teeth before and after isolation.  
Methods: The study comprised of 30 patients in whom photographs of teeth with white spot lesions were taken before and after rubber dam isolation. The size of the lesion was compared using the ImageJ software.  
Results: The results were statistically significant.  
Conclusion: As the results suggest, many cervical white spot lesions have subgingival extensions which remain undiagnosed during routine procedures. Thus a seemingly thorough preventive treatment may not be entirely comprehensive, leaving behind few niche of infection.

Comparing the effectiveness of tetrafluoroethane and lignocaine spray in reducing pain and discomfort of dental injections in children: A split mouth randomised crossover study

Shradha Sharad Gavade  
Post Graduate Research Centre, SMBT Dental College and Hospital, Sangamner, Maharashtra, India

Presentation Type: Oral  
Category: Original Research  
Use of tetrafluoroethane as cryoanaesthesia is being studied as an alternative to routinely used topical anaesthesia i.e. lignocaine.  
Aim: To evaluate and compare the effect of tetrafluoroethane and lignocaine spray as topical anaesthesia in reducing pain and discomfort associated with inferior alveolar nerve block (IANB) in children.  
Methods: 30 children aged 6-9 years participated in this study. In the first visit for 15 participants lignocaine spray was used, for other 15 participants tetrafluoroethane spray was used before IANB. In the second visit, the participants were crossed-over and received the other intervention on the opposite side. Subjective analysis of discomfort and pain was done using Wong-Baker scale and objective analysis by flacc scale.  
Results: Pain and discomfort is less with tetrafluoroethane spray compared to lignocaine spray.  
Conclusion: Tetrafluoroethane provides a better alternative as topical anaesthesia.

Clinical diagnosis, knowledge and management of molar incisor hypomineralization among dentists: A cross-sectional study

Sangeetha J Kadavan  
P.S.M. Dental College and Research Centre, Thrissur, Kerala, India

Presentation Type: Oral  
Category: Original Research  
Molar incisor hypomineralization (MIH) is a clinical condition of systemic origin with a qualitative enamel developmental defect that affects one or more first permanent molars with or without the involvement of permanent incisors.  
Aim: To assess the knowledge, clinical diagnosis and management followed by dentists in molar incisor hypomineralization.  
Methods: A cross-sectional study was conducted among 133 dentists including general dentists and specialty dental practitioners. Data was obtained using questionnaires. Statistical analysis was performed using SPSS 23.  
Results: The knowledge about MIH is limited, especially among general dental practitioners. Management was mostly done with preformed metal crowns in severe cases and composite restorations in mild cases.  
Conclusion: There is a need to bring awareness about this condition among all health care providers through continuing dental education programs and awareness programs on MIH.

The crown affairs...strip and shell are there!!!

Sapna Sikarwar  
RUHS College of Dental Sciences (Government Dental College Jaipur), Jaipur, Rajasthan, India

Presentation Type: Oral  
Category: Original Research  
Rehabilitation of mutilated primary anterior teeth in management of ECC poses major challenge to pediatric dentists. Numerous treatment approaches have been put up to address esthetics and retention of restorations in these teeth.  
Aims: To compare and evaluate the clinical outcomes and parental satisfaction of two esthetic full coronal restorations (strip crown and indirect composite shell crown) in carious and traumatized primary maxillary anterior teeth.  
Methods: The present study was conducted on 20 teeth of children of age group 3-7 years. This was a split mouth study wherein maxillary
Abstracts

Assessment of stress level in 6–8 years old caries free and caries active children: A pilot study
Sakshi Jain
ITS Dental College, Hospital and Research Centre, Noida, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Caries has negative impact on general health and quality of life of individual and may be influenced by secondary factors. Under chronic stress condition, the ANS system functions and consequently, the salivary gland functions can get altered, which may increase risk of dental caries.
Aim: To assess stress level in 6-8 years old caries free and caries active children.
Methods: 6-8 years old children visiting the department were screened and divided into 2 groups: Caries free and caries active. Patient’s history was taken and saliva samples were collected and then ELISA test was performed for evaluation of cortisol and salivary IgA levels in both groups.
Results: Study showed significant relation between stress level and caries activity of a child.
Conclusion: Stress level plays an important role in dental caries and factors causing increased stress levels need to be identified for a better future oral health of an individual.

Impact of oral diseases on daily activities: A study in visually impaired children
Shaileen William
New Horizon Dental College and Research Institute, Chhattisgarh, India

Presentation Type: Oral
Category: Original Research
Introduction: Oral health is a key factor for overall health. Oral diseases cause pain, limit the activities such as eating, speaking properly and many more. Hence detection of oral diseases is important for their correction and treatment planning.
Aim: Aim of this study is to assess the impact of oral diseases in visually impaired children in age range of 7-16 years.
Methodology: The sample consisted of 106 visually impaired children studying in govt. Blind and deaf school in Bilaspur, Chhattisgarh. Procedure involved two steps; oral examination and face to face questionnaire.
Results: The prevalence of dental caries was 32.07%, fracture of anterior teeth was 35.84%, gingivitis was 49.05%. Affected daily activity was eating 47.16%, sleeping was 13.20% and cleaning mouth 13.20%.
Conclusion: The results conclude that most prevalent is gingivitis and eating is most affected daily activity.

Abracadabra with vibraject
P Tanuja
Sri Siddhartha Dental College, Tumkur, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Behavioral and physiological observations suggest injection as the most feared procedure during dental intervention. An inexpensive and potentially promising alternative to address the discomfort by dental injections is Vibraject.
Aim: To compare the pain perception and behavior in children using conventional and Vibraject injection techniques.
Methods: Sixty children requiring dental procedures on both sides of the oral cavity under LA were selected and divided into 3 groups based on their age. Split mouth technique was used. In the 1st appointment dental procedure were carried out following local anesthesia using conventional injection technique and on the next appointment with the vibraject attachment the pain perception was recorded with Wong Baker faces pain rating scale, followed by behavioral pattern based on Frankl behavioural rating scale.
Results: This study showed reduced pain during anesthesia administration with vibraject than the conventional technique.
Conclusion: It is concluded that the vibraject appears to be promising in reducing pain during local anaesthetic procedure in children.

Effectiveness of audio-visual distraction on conventional and computer assisted local anesthetic systems in pediatric dentistry
Anusree, Divyashree R Shet
A.J. Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Background: Local anesthesia is one of the most anxiety provoking for both adults and pediatric patients. An innovative computerized system for slow delivery of local anesthesia has been developed to reduce pain. Considering the anxiety of the child to the dental equipment, the child may be apprehensive, which can be managed by suitable distraction techniques.
Aim: To evaluate the effectiveness of audiovisual distraction on conventional and computer assisted local anesthetic system in pediatric dentistry. Study-design: 36 children of age group 8-12 years with Frankel’s behavior rating score 2 or 3 requiring local anesthesia for deciduous molars indicated for pulp therapy were divided into 3 groups. Group 1: Conventional local anesthesia + tell-show-do group 2: Conventional local anesthesia + audiovisual distraction group 3: Computer assisted local anesthesia + audiovisual distraction VAS score, pulse rate and oxygen saturation were assessed to measure the intensity of pain.
Results: Study is on going.

Attitude and willingness of pediatric dentists in India regarding dental care for children with developmental and intellectual disabilities
Divya Mary Mathew
M.S. Ramaiah Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Methodology: A survey with a 23 item questionnaire was emailed via survey monkey tool to pediatric dentists and postgraduates in pediatric dentistry across India. The survey was also shared via mobile link.
Results: 104 responses were obtained.95% of respondents do provide dental care for children with DD/ID. 82% are very confident/confident in treating these children with non pharmacological methods, while 67% are very confident/confident with pharmacological methods. 99% are willing to provide dental care for children with DD/ID.
Abstracts

Conclusion: Pediatric dentists and postgraduate respondents were willing to provide dental treatment for patients with DD/ID and are confident with pharmacological and non pharmacological treatment modalities.

Oral health knowledge attitude behaviour among post graduate students of Panjab University Chandigarh: A cross-sectional study
Leena Verma
Dr. Harvansh Singh Judge Institute of Dental Sciences and Hospital, Chandigarh, India

Presentation Type: Oral
Category: Original Research

Aim: To comparatively evaluate oral health knowledge, attitude and practices of post-graduate students of Panjab University, Chandigarh.

Setting and Design: A cross-sectional survey was conducted using a questionnaire that assessed knowledge, attitude and practice (KAP) of postgraduate students.

Methodology: 600 students were divided into 3 groups: group 1-arts students (n=200), group 2-science students (n=200), group 3-commerce students (n=200). Data was collected and subjected to statistical analysis.

Statistical Analysis: Chi square test, ANOVA and Kruskal–Wallis compared data between different departments.

Results: The students of arts had significantly lesser knowledge of oral health compared to other departments. 65% arts students believed that sweets/chips were causing tooth decay compared to 83% science and 80% commerce students (p-value).

Bringing oral health with herbal
Satishkumar Jagdishwarrao Basa
Dr. D.Y. Patil Dental College and Hospital, Pune, Maharashtra, India

Presentation Type: Oral
Category: Original Research

Introduction: Embelia species is a medicinal plant used since ancient times for its anthelmintic, anti-oxidant and anti-bacterial properties and is less explored. As dental caries is most prevalent oral disease in children as well as adults of developing countries, hence preventive strategies against dental caries play key role. This study compares this ancient medicinal plant (embelia basal) with gold standard 0.2% chlorhexidine for its antibacterial property.

Aim: To evaluate and compare antimicrobial properties of different concentrations of acetic extract of Embelia basal (leaves) and 0.2% chlorhexidine against streptococcus mutans serotype c (ATCC 25175) and acidogenic salivary microflora in mixed dentition age group.

Methods: 1. Saliva collection via passive drooling method. 2. Microbiological assay. 3. Zone of inhibition in mm. 4. Results & statistical analysis.

Results: Antimicrobial property of embelia basal acetic extract at higher concentration is comparable with gold standard 0.2% chlorhexidine.

Knowledge and awareness of pedodontists in diagnosing and treating children with attention deficit hyperactivity disorder
Pululur Mounika
Sri Sai College of Dental Surgery, Vikarabad, Telangana, India

Presentation Type: Oral
Category: Original Research

Introduction: The most challenging aspect of pediatric dentistry is to manage special child. One among such category is ADHD. With its increased prevalence, pediatric dentists should have sound knowledge on behavior modification techniques, drugs interactions in treating such children.

Aim: The purpose of this study is to assess awareness of pedodontists regarding ADHD.

Methods: A questionnaire with 22 questions is distributed to all the pedodontists in India in the form of Google forms. Responses obtained were tabulated and subjected to statistical analysis.

Results: It was observed that many of the pedodontists could identify the diagnostic symptoms of ADHD (P).

Comparative evaluation of marginal microleakage and compressive strength of alkasite restorative material and bulk fill composite restorative material in class 2 restorations” in vitro study
Arun Kumar Bhandari
Punjab Government Dental College and Hospital, Amritsar, Punjab, India

Presentation Type: Oral
Category: Original Research

Introduction: The primary goal of material sciences pertaining to dentistry has always been the improvement of restorative materials. Microleakage and compressive strength are clinically important parameter in dentistry.

Methods: A total of 120 extracted human premolar teeth were taken. 60 specimens were used to evaluate compressive strength and 60 to evaluate microleakage. Both 60 specimens were divided into two groups (n=30) group 1 was restored with alkasite material and group 2 with bulk fill composites. 60 specimens were used to evaluate compressive strength under universal testing machine. Remaining 60 specimens were immersed in 0.1 methylene blue dye, sectioned and evaluated under stereomicroscope.

Results: It is stastically analysed that bulk fill composite has more compressive strength and microleakage increases as dye penetration increases.

Assessment of oral health status of 13–17-year-old adolescents in urban and rural Bengaluru
A Niranjana
The Oxford Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research

Introduction: Reports on oral health status of adolescents in rural and urban location is lacking in literature.

Aim: Aim of the present study was to assess the oral health status of 13-17-year-old adolescents in urban and rural Bengaluru, India. Oral health status of eight hundred adolescents from urban and rural Bengaluru were assessed using the World Health Organization oral health assessment form. Data recorded was subjected to chi square test analysis.

Results: DMFT scores of adolescents in urban Bengaluru (1.74±2.28) was significantly higher than rural Bengaluru (1±1.68). Gingival bleeding was significantly higher among the adolescents of rural Bengaluru (60.8%) than urban Bengaluru (39.8%). Dental fluorosis was significantly higher among the adolescents of urban Bengaluru (9.5%) than rural Bengaluru (4.5%). Adolescents did not differ regarding dental trauma experience.

Conclusion: Adolescents from urban Bengaluru had higher caries experience and dental fluorosis and lower gingival bleeding.

Comparative evaluation of hall technique and conventional glass ionomer restoration for management of dentinal caries: A split mouth randomized clinical trial
Abstracts

Shruti Shampa
ITS Dental College, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Hall technique is a method for managing carious primary molar teeth where preformed SSC is seated over tooth sealing carious tissue rather than excavating carious tissue.
Aim: To compare the clinical effectiveness of hall technique with conventional GIC for managing caries in primary molar as well as their acceptability for children.
Methodology: Split mouth randomized control trial. 75 children aged 3-9 were selected. GIC restoration in carious molar and hall technique on the contralateral molar. Degree of discomfort felt by child during each technique was measured. Teeth were followed up clinically and radiographically for 12 months.
Results: Though there was no significant difference in acceptability for hall technique and GIC restoration but hall technique showed better results when compared clinically and radiographically.
Conclusion: Teeth treated with hall technique showed more favorable result as compare to conventional GIC restoration at 12 months followup.

The knowledge, attitude and practice of hall technique among pedodontists in India
K M Kiran Malani
Meenakshi Ammal Dental College and Hospital, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Presenting author: Dr.Kirammalani K.M., II nd year m.d.s guided by: Dr.A.Sankar M.D.S, M.B.A(HM), abstract: dental caries is the commonest disease seen in children which needs appropriate treatment to avoid progression of the disease. Conventionally the treatment involves excavation of caries and restoration with the dental cements. For primary molars with multi surface caries the most recommended treatment is the placement of stainless steel crown. They are placed by preparing the occlusal and proximal surfaces under local anesthesia with powered dental equipments. An alternative, noninvasive and biological method of placing stainless steel crown is the hall technique. This is a simple technique without the need for local anesthesia, caries removal /tooth preparation. This paper reveals the knowledge, attitude and practice of the hall technique among pedodontists in India and speculates on what lies ahead.

Knowledge, perceptions and clinical experiences on molar incisor hypomineralization among dental postgraduates in Telangana
I Reddy Srujana
Sri Sai College of Dental Surgery, Vikarabad, Telangana, India

Presentation Type: Oral
Category: Original Research
Introduction: Over the past two decades, inspite of an increasing number of congenital defects affecting enamel mineralization referred to as molar incisor hypomineralization (MIH) there is little information regarding its prevalence, aetiology, prevention and management.
Aim: This study is aimed to evaluate and compare the knowledge, perception and clinical experience on MIH among dental post graduates in Telangana.
Methods: A questionnaire was sent to all dental postgraduates in Telangana. The questionnaire sought information on knowledge, perception and clinical experiences on MIH. The data collected was tabulated and subjected to statistical analysis.
Results: Results showed that senior postgraduates had better knowledge regarding MIH, fluorosis and enamel hypoplasia which was found to be statistically significant p value.

Comparing the effectiveness of two distraction modalities on dental anxiety during local anesthesia administration
Padminee Krishnan
SRM Dental College, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Introduction: Minimizing dental anxiety during local anesthesia delivery is imperative in instilling positive dental experience for the child.
Aims: To compare the effect of biofeedback relaxation with audio-visual distraction on dental anxiety while delivering la, among 7-12 year old.
Methods: Forty children were randomly divided into two groups. Group a received la while using virtual reality goggles whereas group b was subjected to BR through bright hearts app in smart phone. Pulse rate and Chota-Bheem Chutki scale were recorded before and after the administration of LA.
Results: Within group comparisons revealed that both interventions reduced anxiety as reported by CBC scale P.

Effectiveness of probiotic mouthwash in high caries risk children using cariogram “A randomized clinical trial”
Kabita Sahoo
SRM Dental College, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental caries is the most prevalent multifactorial disease worldwide.
Aim: To assess the change in cariogram outcome in high caries risk children after a 30 days intervention with probiotic mouthwash.
Methods: One hundred children (6 to 11 years) were subjected to cariogram caries risk assessment. Sixty high caries risk children were randomly divided into two groups. Group a was intervened with fluoridated toothpaste and group b with fluoridated toothpaste and probiotic mouthwash (Darolac) for a period of 30 days. Post-intervention cariograms were constructed.
Results: Both groups showed increase in percentage of cariograms green sector (P)

Evaluation of bite force before and after cross bite correction in children and adolescents
Shravani K Deshpande
MGV’S KBH Dental College and Hospital, Nashik, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Several factors have been proposed which influences maximum bite force, out of which cross bite is important in influencing the maximum bite force. Measurement of bite force used to understand and assess the outcome of cross bite correction.
Methods: The children having unilateral cross bite between the age group of 4 to 15 years selected. The maximum bite force were obtained by using Tekscan elf bite force measuring device in 20 patients and same patients were examined after cross bite correction. Mximum bite force were recorded and subjected to statistical analysis.
Results: Mean maximum bite force values seemed to be greater after correction of cross bite. P=0.005
Abstracts

Conclusion: Early interventions of unilateral cross bite significantly increases the efficacy of mastication and thereby increasing the quality of life of a child.

Evaluation of curcumin as obturation material in pulpectomy
Sai Charishma
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Presentation Type: Oral
Category: Original Research
Introduction: Pulpectomy requires complete debridement of root canal and obtaining a hermetic seal with an obturation material that prevents re-infection.

Aim: To evaluate the clinical and radiographic success rates of curcumin as an obturation material compared to calcium hydroxide and Iodoform (Metapex).

Methods: Thirty two primary molars with irreversible pulpitis, indicated for single visit pulpectomy were included. All the teeth had undergone pulpectomy procedure under rubber dam isolation and were obturated with curcumin and metapex, sixteen teeth in each group. Clinical and radiographic outcomes were evaluated at 10 days, 1 month, 3 months, 6 months.

Results: At the end of 6 months, Metapex showed 100% success rate whereas curcumin showed 62%, p=0.021, the difference is statistically significant.

Conclusion: The study concluded that curcumin had significantly less success rate compared to Metapex in 6 months follow-up. The use of curcumin can still be extended with different combinations.

Honey - An elixir for avulsed teeth
Priyal Sheth
A.B. Shetty Memorial Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Honey has several properties fulfilling most of the ideal requirements of storage media for avulsed teeth, but has not been assessed enough in literature.

Aim: To evaluate the viability of human periodontal ligament (PDL) cells in honey as a storage media.

Methods: 35 freshly extracted premolars divided into 4 groups - I - no media (negative control), II - placed in honey 30 minutes post-extraction, III - placed immediately in honey post-extraction, IV - placed in HBSS (positive control). MTT assay analysed the cell viability at 3 and 6 hours.

Results: At 3 and 6 hours, Group III and IV showed no statistical difference, at P < 0.05. Group III and IV had statistically significant higher cell viability than group i and ii.

Conclusion: Placing avulsed tooth immediately in honey, up to 6 hours, is as effective as using HBSS as storage medium.

A split mouth randomized clinical trial to compare the clinical performance of preformed zirconia crowns and stainless steel crowns for primary first molar
Ivin Wilson
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Presentation Type: Oral
Category: Original Research
Aesthetic alternatives to SSC for restoring primary molars attain growing interest. The recently developed prefabricated ZCS are a fairly new treatment option that enables practitioners to provide superior esthetic results.

Aim: To compare the clinical performance and parental satisfaction of preformed ZC and SSC restoration in primary mandibular first molar.

Materials and Methodology: Total 40 patients of age 5-8 year old children were divided in to two groups. Simplified oral hygiene index (OHI-S), gingival index (GI), occlusion and bite force of both crowns evaluated for one year. Parental satisfaction was evaluated at 6th month followup.

Results: ZC showed lower OHI-S scores than SSC. The GI levels were not different at the follow-up. There was no significant difference for bite force and occlusion. Parental satisfaction was better for ZC.

Conclusion: ZC shows better results for gingival health and highest parental satisfaction.

Resin-modified glass ionomer cement versus resin based materials as pit and fissure sealant, split mouth clinical trial
Aakash Vijay Patil
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Presentation Type: Oral
Category: Original Research
Introduction: Permanent first molars in posterior region of the child’s mouth complicates their ability to properly clean debris. Their occlusal surface has deep seated & retentive fissures, leading to caries. Sealants used as effective intervention for preventing occlusal caries in the permanent molars. 2 types of sealants used, resin based material & RM-GIC.

Aim: To compare resin-modified glass ionomer cement with resin based materials as sealant.

Methods: 50 children under 6-9 years, having permanent first molar with retentive deep pits & fissure, divided into 2 groups based on sealant. Group a - resin-modified GIC, Group b - resin based material. Retention, staining assessed after 3 months followed by analysis.

Results: RM-GIC used as sealant & found almost effective as compared with resin based material. P=0.005.

Conclusion: RM-GIC can be used in molars where moisture control is compromised, effective in preventing caries.

Perception of dental students and staff towards the labeling of free sugars on processed foods: A cross-sectional study
Swati Samaleti
Yerala Medical Trust and Research Centre's Dental College and Hospital, Navi Mumbai, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Labeling of processed foods with free sugars is often misleading. literacy of dental profession towards the same needs to be assessed.

Aim: To assess the perception of dental students and staff towards the labeling of free sugars on processed foods.

Methods: A validated 16-point questionnaire was administered to 350 students and staff of a dental college. Domains were demographic details; perception about the free sugars on labels; necessity for caution and responsibility of health and dental profession towards the same. additional comments were also assessed.

Results: Although 46% participants noticed free sugars in the labels, only 12.5% identified them correctly. 54.2% of participants felt the need to put a caution. Statement, pictoral and both these cautions were preferred by 25.1%, 19.4% and 50.8% respectively.

Conclusion: Literacy of dental students and staff towards the labeling of free sugars was poor; however, the need for caution was emphasized.
Effect of microabrasion-resin infiltration and microabrasion: Remineralization on dental fluorosis: A quantitative light-induced fluorescence based in vivo study

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Presentation Type: Oral
Category: Original Research
Dental fluorosis is a condition that comprises hypomineralized areas resulting in lower fluorescence. QLF is an objective method for fluorescence loss quantification. Previous literature shows microabrasion, resin infiltration, composite restoration or porcelain veneers as treatment options for fluorosis. Microabrasion and resin infiltration are minimally invasive techniques and have not been researched extensively. To evaluate effectiveness of microabrasion resin infiltration and microabrasion remineralization on fluorosed teeth using QLF. Thirty fluorosed incisors (grade 3 per dean’s fluorosis index) of patients aged 9-12 years were divided into group a (microabrasion remineralization) and group b (microabrasion resin infiltration). Absolute decrease in fluorescence ($\Delta F$) was recorded pretreatment, midtreatment and posttreatment using QLF. After microabrasion, $\Delta F$ values in both groups showed similar reduction. Posttreatment fluorescence loss was reduced significantly in Group b compared to Group a. Microabrasion resin infiltration was more effective than microabrasion remineralization in dental fluorosis management.

A comparative evaluation of antibacterial efficacy of Kidodent, probiotics and Carica papaya leaf extract mouthwashes in reducing Streptococcus mutans count. A randomized controlled study

Syeda Subia Sara
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Presentation Type: Oral
Category: Original Research
Introduction: Streptococcus mutans is a principle microbe responsible for caries to which mouthwashes proves to be an effective means in declining their count. Aim: To compare and evaluate the antimicrobial efficacy of Kidodent, probiotics and carica papaya leaf extract mouthwashes in reducing streptococcus mutans count. Methods: 60 CHILDREN AGED BETWEEN 8-12 YEARS WERE SELECTED & Divided INTO four groups, Group 1 (kidodent mouthwash) Group II (probiotics) Group III (papaya leaf extract) Group IV (placebo). Participants rinsed with mouthwash for 30 sec once daily. CFU/ml were determined by serial dilution method and calculated using manual colony counter. Data was statistically analysed using one-way ANOVA and t-test. Results: Probiotics and papaya leaf extract mouthwashes showed significant reduction in streptococcus mutans count when compared to kidodent mouthwash. Conclusion: Probiotics and papaya leaf extract mouthwashes manifested potential efficacy in reducing streptococcus mutans count.

Influence of maternal oral health knowledge and practices on child’s oral health

Renuka Chinchalkar
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Presentation Type: Oral
Category: Original Research
Introduction: Children below the age of 7 years spend of their time with their parents and guardians especially mothers. Maternal oral health knowledge, belief and attitudes influence oral health maintenance, dietary habits and healthy behaviour of their children. The aim of this study was to assess impact of mother’s oral health care knowledge on the health status of their child. Methods: Total of 100 mothers and children visiting the department were randomly selected for study. A questionnaire including parents name, age, literacy levels, socioeconomic status, dietary practices and oral hygiene practices was designed to assess the knowledge of mothers regarding oral health of themselves and their child. Later the child’s oral health status was examined. Results and Conclusion: Results were statistically analysed and it was concluded that there was a significant influence of mothers oral health knowledge and practices on child’s oral health.

Prevalence and etiology of traumatic dental injuries among rural school children in Calicut district, Kerala

K Nazreen Ayub
KMCT Dental College, Kozhikode, Kerala, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental trauma has a physical, aesthetic and psychological impact not only on child but also on their parents. Aim: To explore relationship between various factors and correlates of dental trauma in rural school children in the age group of 6-12 years in Calicut district. Methods: A crosssectional study was conducted among 1221 rural school children (751 boys and 470 girls) who were athletically active. Data were collected using structured questionnaire and oral examination. Statistical analysis done using spss version20, association was evaluated by chi-square test. Results: Participation in competitive sports was greater among boys than girls. Overall prevalence of dental trauma was 13.9%. Ellis class i fracture was the most common traumatic dental injury. Conclusion: Sports participation in rural schools were less organized and supervised. Children of age group 11-12 years actively participated in sports for more duration and time and were most affected by traumatic dental injuries.

Evaluation of the average maxillary and frontal sinus volume in 8–14 years old children: A CBCT study

Rajesh Laxmanrao Ijalkar
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Presentation Type: Oral
Category: Original Research
Introduction: Forensic science utilizes anatomical structures like fingerprints, iris, and retina for personal identification. Paranasal sinuses, the maxillary and frontal sinuses are of particular significance, due to their inter-individual variability and uniqueness in age estimation. Knowledge of the average volume of maxillary and frontal sinus in 8-14 year old patient is useful for age estimation in a pediatric population. Aim: Evaluation of average maxillary and frontal sinus volume in 8-14 year old children. Methods: A cross-sectional study conducted on children without relevant medical history, enlarged adenoids. Average volume of maxillary and frontal sinus is calculated by predetermined parameters in CBCT. Patient divided into 3 groups Group-1 is 8-10 yr, Group-2 10-12 yr, Group-3 12-14yr old patients. Results: There is significant difference seen indifferent age group of patient. Conclusion: There are differences in maxillary and frontal sinus volume in different age groups which may use for age determination in pediatric populations.
Abstracts

“Acupressure”: Can it curb dental anxiety in 8–12 years children?
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Presentation Type: Oral
Category: Original Research
Introduction: Anxiety is a common problem in pediatric dentistry, and it is important to explore alternative methods to reduce it.
Aim: To evaluate the effect of acupressures on children’s dental anxiety.
Methods: Children between 8-12 years, who required inferior nerve block for dental treatment, were randomly assigned to the following groups: (Group 1); sham (Group 2); and control (Group 3). Anxiety was recorded for all the children using the modified child dental anxiety scale. The Frankel scale for objective measure and pulse rate for physiologic parameter was recorded. The scores were tabulated, compared, and analyzed statistically.
Results: A significant difference was found in MCDAS, pulse rate, and the Frankl behavior ratings among the three groups of children, with acupressure group displaying a lower level of anxiety.

A cross sectional survey of tobacco use among school children in New Delhi
Ankita Verma
AllIMS, New Delhi, India

Presentation Type: Oral
Category: Original Research
Introduction: Tobacco use in any form continues to be significant health risk among children. A study was conducted to assess the prevalence, pattern and age of initiation of tobacco consumption, factors influencing the habit and educational status of children among schoolchildren in New Delhi.
Methods: A questionnaire-based survey was undertaken among five hundred students (8-14 years) from two schools in New Delhi after taking inform consent from authorities.
Results: Tobacco consumption among students was 16.4%. Out of total 82 tobacco users 89% were male while 11% were female. Smokeless tobacco consumption was predominant with Gutka being most preferred. Mean age of initiation of smoking form was 9.57± 1.13 year while for smokeless form it was 9.25± 1.16 years. Friends (78.04%) were most common influencing factors.
Conclusion: Prevalence of tobacco use was high, considering age group. Consumption of tobacco amongst children is an emerging health problem in New Delhi.

Midline diastema: A clinical dilemma
Megha Shrivastava
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Presentation Type: Oral
Category: Original Research
Introduction: Management of midline maxillary diastema during the eruption of canines create a dilemma. There is a difference in opinion amongst the various specialties regarding management strategies.
Aim: The purpose of this study was to survey pediatric dentists, orthodontists, periodontists and oral surgeons regarding their opinion on the management strategy for closure of midline diastema in an attempt to develop a consensus.
Methodology: A 7 item electronic questionnaire and handouts was sent to postgraduates of dental colleges of Bangalore regarding etiology, diagnosis and treatment of midline diastema.

Results: 81% pedodontists, 69.1% orthodontists, 77.7% oral surgeons and 83.7% periodontists had an agreement on the closure of midline diastema after the canines erupt. There was an overall agreement amongst all specialties (80.8%) over the closure of the space orthodontically first.
Conclusion: Currently there is no consensus among the oral surgeons, orthodontists, pedodontists and periodontists regarding the management of maxillary midline diastema.

Comparative evaluation of clinical and radiographic efficacy of four different pulpotomy medicaments in primary molars: An in vivo study
Smriti Gupta
ITS Dental College, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Preservation of pulp vitality in primary teeth affected by caries or trauma is important for maintaining integrity of dental arches as well as for preserving esthetics prior to eruption of successors. Pulpotomy is preferred procedure when only coronal pulp is inflamed due to bacterial penetration while radicular pulp is free from inflammation.
Aim: To evaluate efficacy of four different pulpotomy medicament’s in primary molars.
Materials and Methods: 80 teeth from 3-6 year old patients indicated for pulpotomy were randomly selected. four groups were taken: Group I formocresol, Group II biodentine, Group III aloe-vera, Group IV triantibiotic paste. All pulpotomized teeth were evaluated at 3, 6 and 9 months clinically and radiographically.
Results: Biodentine amongst all four groups showed significant results when compared clinically and radiographically.
Conclusion: Teeth treated with biodentine showed more favorable clinical and radiographic success as compared to others at 9 months follow-up.

Effectiveness of music distraction in managing dental anxiety in 6-12 year old children measured using galvanic skin response
G Geethanjali
A.B. Shetty Memorial Institute of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental anxiety can be measured using various physiological methods of which galvanic skin response (GSR) has received less attention. Music distraction is well known nonpharmacological method of dental anxiety management. However its effect has not been assessed using GSR.
Aim: To determine the effect of music distraction on dental anxiety in children aged 6-12 years using GSR biofeedback.
Methods: 40 children aged between 6-12 years were randomly divided into control and study (music distraction) groups of 20 each. Oral examination and oral prophylaxis were done in first and second visits respectively. Dental anxiety levels were measured before and after procedures using GSR biofeedback machine.
Results: Dental anxiety was less in music distraction group compared to control group with the values showing statistically significant difference (P).

Prevalence and pattern of molar incisal hypomineralisation in Delhi NCR
Rashi Singh
Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental anxiety can be measured using various physiological methods of which galvanic skin response (GSR) has received less attention. Music distraction is well known nonpharmacological method of dental anxiety management. However its effect has not been assessed using GSR.
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Prevalence and pattern of molar incisal hypomineralisation in Delhi NCR
Rashi Singh
Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, India
Abstracts

Presentation Type: Oral
Category: Original Research
Introduction: MIH is currently the most prevalent of developmental defects of enamel in children. Molar incisal hypomineralisation presents itself as a serious clinical dilemma for pediatric dentists and clinical practitioners. It is a global endemic. However its prevalence in India remains uncertain.

Aim: To find the prevalence and pattern of MIH in Delhi NCR.

Methodology: A total of 649 children aged between 7-10 years were randomly selected from various schools in Delhi NCR. The teeth were examined under natural light. The developmental defects of enamel were graded using modified European academy of pediatric dentistry judgement criteria given by Ghanim et al (2015).

Results: A total of 97 subjects presented with MIH of 649 subjects examined. MIH presented with a prevalence of 15%. Creamy white opacities were most common of defect present, followed by yellowish brown opacities.

Conclusion: The prevalence of MIH in Delhi NCR region is 15%.

Comparison of remineralization potential of fluoride varnish and CPP-ACP varnish with or without prior acid etching: An in vitro study
Shambhavi Singh
I.T.S. Dental College, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Demineralization and remineralization has crucial impact on hardness and strength of enamel. Studies report that CPP-ACP remineralizes sub-surface and subsurface lesion.

Aim: To assess the effect of prior acid etching on remineralizing ability of fluoride varnish and CPP-ACP by Diagnodent and VHN.

Methods: 80 enamel blocks were divided into subgroups a (fluorprotector with acid etching), b (fluorprotector without acid etching), c (MI varnish with acid etching), d (MI varnish without acid etching). Baseline, demineralization and remineralization values were measured by diagodent and Vicker’s hardness intender respectively. There was no statistically significant difference between acid etching and no acid etching between the groups. CPP-ACP showed better results than fluoride varnish. Acid etching had no impact on remineralizing potential and CPP-ACP has better remineralization potential than fluoride varnish.

Conclusion: School oral health education is highly effective to impart good oral hygiene practices and prevent pandemic distribution of caries.

Efficacy of smear layer removal by six different irrigating solutions in primary teeth: An in vitro study
Akhila Ansari
Kannur Dental College, Kannur, Kerala, India

Presentation Type: Oral
Category: Original Research
The purpose of the endodontic treatment is to achieve thorough debridement of the root canal. Thus a variety of irrigants are required to clean and shape the root canals this study was done to compare of the smear layer removal efficacies of MTAD, tetra clean, Q mixm2 in 1 solution, 5.25% NaOCL solution, and coconut water in primary tooth through scanning electron microscopy. 60 primary single rooted tooth were decoronated at the CEJ. Biomechanical preparation was sequentially done from no 15 to 40 in the entire working length of the canal by single operator. Each group was flooded with 1 ml of respective solutions and then slow rinsing of remaining 4 ml irrigant for 60 s. In the middle and apical third q mix and sodium hypochlorite showed better results. Q mix can be considered as an effective root canal irrigant since it effectively removed smear layer from all the three aspects of root canal.

Cone-beam computed tomographic evaluation of effect of different taper and technique of biomechanical preparation on root dentin thickness: An in vitro study
Diksha Sharma
Himachal Dental College, Mandi, Himachal Pradesh, India

Presentation Type: Oral
Category: Original Research
Aim: The aim of proposed study was to evaluate and compare the effect of different taper and different techniques of root canal instrument on root dentin thickness.

Materials and Methods: For this study 40 single rooted premolar teeth with less than 20 degree curvature were selected. Of these 10 teeth were distributed for each group, where Group 1 included hand k files, Group 2 included protaper hand files, Group 3 included profile rotary files and Group 4 included protaper gold rotary files. Pre instrumentation and post- instrumentation measurements were obtained from 3 mm, 5 mm and 7 mm radiographic root apex by cone beam computerized tomography. The values thus obtained were statistically analysed and compared.

Results and Conclusion: Out of all groups hand protaper has removed maximum amount of root dentin.

Longitudinal clinical evaluation of GIC restoration done with alternative restorative technique and it’s comparison with conventional Class I cavity preparation
Amuradha
Himachal Dental College, Mandi, Himachal Pradesh, India

Presentation Type: Oral
Category: Original Research
The study is undertaken to evaluate the success rate of glass ionomer cement restoration in class I cavity by alternative restorative technique and its comparison with conventional class I cavity preparation. The success rate is evaluated clinically over a period of 12 months by checking different parameters namely; marginal defects, breakage of restoration, gross defects of restoration, wear and tear, post operative pain and swelling.
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Materials and Methods: The present study is conducted in rural children residing along the vicinity of Sundernagar, Himachal Pradesh. study participants (122 samples) were divided into experimental group in which cavity were restored with GIC by alternative restorative technique and the control group in which GIC was placed using the conventional class I cavity preparation.

Results and Conclusion: Under statistical analysis. To be discussed later.

Comparative evaluation of different storage media in maintaining periodontal ligament cell viability: An in vitro study
Divya Negi
Himachal Dental College, Mandi, Himachal Pradesh, India

Presentation Type: Oral
Category: Original Research
Aim: The present study was undertaken to evaluate the viability of periodontal ligament cells of avulsed teeth in eight different storage media in different storage media.

Materials and Methods: 160 premolars extracted for orthodontic purposes were randomly divided into eight groups. Following extractions the teeth were placed in different storage media for 45 min, 2 hrs, 6 hrs and 24 hrs. Scraping of the PDL from these teeth were collected in falcon tubes containing collagenase enzyme in 2.5 ml of phosphate buffered saline. These tubes were incubated for 30 min and centrifuged for 5 min at 800 rpm. The obtained PDL cells were stained with trypan blue and were observed under optical microscope. The percentage of viable cells was calculated.

Results and Conclusion: Propolis showed highest percentage of viable cells followed by HBSS, egg white, aloevera, milk, saline, ORS & artificial saliva.

Effectiveness of picture exchange communication system on dental plaque and oral health of children with autism
K S Nameeda
Krishnadevaraya College of Dental Sciences and Hospital, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Picture exchange communication system (PECS) is a nonverbal method of communication used for individuals with developmental disabilities to emphasize the need for improved oral hygiene and also for conditioning prior to dental treatment procedure.

Aims: To evaluate the effectiveness of PECS on dental plaque accumulation and oral health of autistic children.

Methods: A prospective interventional study was done on autistic spectrum disorder children. based on PECS, a series of pictures that showed a structured method and technique of tooth brushing were placed in the bathroom at home and/or at the autism center. OHIP and plaque indices were recorded at each clinical visit.

Results: Statistically significant change in OHIP and PI was observed. (P value.

Type of terminal plane occlusion and its effect on caries occurrence in primary molars in primary dentition
Vishal Sharma
SGT University, Gurugram, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Primary occlusion may improve or worsen as an individual moves from primary to permanent dentition. The prediction of the development of mixed and permanent dentition can be based on several features, one being dental caries.

Aim: To evaluate co-relation between occurrence of terminal plane and caries occurrence in maxillary and mandibular primary molars.

Methodology: 100 children reporting to the OPD of pedodontics and preventive dentistry, SGT university, Gurugram, in the age group 3-5 years of Gurugram district will be examined for terminal plane. DMFS scoring will be done to evaluate the presence of caries in maxillary and mandibular primary molars.

Results: The results will be evaluated statistically.

Conclusion: Pilot study of 20 cases shows that caries occurrence is independent of type of terminal planes.

Association of Candida spp. with oral health practices and activity status of carious lesions among children with early childhood caries
B S Suprabha
Manipal College of Dental Sciences, Mangalore, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Candida spp. is frequently detected in plaque of children with early childhood caries (ECC).

Aim: To examine the association of Candida spp. counts in supragingival plaque with the activity status of carious lesions and oral health practices of children with ECC.

Methods: Caries status of 66 children aged 5 years was recorded as per the ICDAS-II and lesion activity assessment criteria. A questionnaire covering oral health practices was administered to parents. Plaque samples were collected and cultured on Chromagar.

Results: A positive correlation was seen between percentage of active carious lesions and colony counts of C. albicans. Improper tooth brushing, dietary and feeding practices were significantly associated with C. albicans count but not with other candida species.

Conclusion: Improper oral health practices and increase in percentage of active carious lesions can lead to an increase in C. albicans level in supragingival plaque of children with ECC.

Esthetic masking of developmental defects of enamel on young incisors using resin infiltration in patients perspective
Shikha
SGT University, Gurugram, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental fluorosis occurs due to chronic fluoride exposure of ameloblasts above threshold level which leads to questionable aesthetics of the teeth in smile zone. New microinvasive technique of penetrating low viscosity resin into subsurface microporosities of lesion area for their masking may be a child friendly technique. It is well accepted by both parents and patients as documented in literature.

Aim: Assessment of satisfaction of children undergoing resin infiltration technique for masking of white spot lesions in their smile zone I.E young permanent anteriors.

Methods: An analysis of 60 child perspective regarding esthetic results measuring their satisfaction after using DMG icon by 5-point likert scale.

Results: Statistically significant number of patients were satisfied to 66.5% (P-value.

An attire to improve the likelihood of rapport amongst guardian, patient and the pediatric dentist
Abstracts

Megha Chawla
Sudha Rustagi College of Dental Sciences and Research, Faridabad, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: First impression can be very important in establishing effective patient-doctor relationship. Research is needed to validate what types of factors create an ideal atmosphere for the patient.
Aim: To assess the children and the guardians preferences for their pediatric dentists attire.
Methods: A total sample of 50 patients and 50 guardians completed the survey. Photographs wearing various combinations of attire (casual, white coat, scrubs) were shown to the participants and were asked to complete the questionnaire.
Results: Among guardians and patients, mostly reported preferring a provider in scrubs, with white coat the second most preferred attire.
Conclusion: Children and parents have strong perceptions and preferences regarding their dentists attire. The results of this study can be used by providers to improve the comfort, and acceptance by patients.

New vision for improving the oral health education of visually impaired children
Satunya Paul
Sudha Rustagi College of Dental Sciences and Research, Faridabad, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: The visually impaired people are at higher risk to develop caries. They are not able to visualize initial signs of caries such as discoloration and also lack in knowledge about oral hygiene practices.
Aim: To investigate effectiveness of Audio-tactile performance technique (ATP) designed for children with visual impairment to improve their oral hygiene.
Methods: 100 visually impaired children were taken and their knowledge regarding oral hygiene practices was tested with a questionnaire. Fones method of toothbrushing was taught by ATP, and health talk was delivered and plaque scores were recorded.
Results: There was decrease in the postinterventional plaque scores and an increase in the posthealth education test scores.
Conclusion: The ATP along with oral health education served as a very effective customized method of teaching oral hygiene practices and its maintenance to the visually impaired children.

Assessment of knowledge, attitude and practice of mothers on oral health care for evaluating the caries risk among children in Faridabad, Haryana
Siji Elizabeth Saji
Sudha Rustagi College of Dental Sciences and Research, Faridabad, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Dental caries is common infectious disease of childhood. The associated risk factors are determined from interviews with parents and children such as socioeconomic, attitudes, knowledge, and behavior about oral health.
Aim: To assess the maternal knowledge, practice and attitude for predicting caries risk in children attending SRDC, Faridabad, Haryana.
Methods: Study was conducted in the department of pedodontics, SRDC, Faridabad, Haryana. total of 100 parents with 2-12 years children, excluding special children who visited for childrens dental treatment were involved in the study with their consent. Structured questionnaire was formulated with 23 questions along with multiple choice answers, targeting attitude, knowledge and practice of parents toward pediatric oral healthcare.
Results: Majority responded positively for questions relating to oral hygiene, suggesting adequate knowledge on oral hygiene, except for fluoride.
Conclusion: Pediatric dental health care attitude and practice among the parents needs to be revisited to improve childrens quality of life.

Infant oral health care knowledge and awareness among paediatricians in twin cities of Odisha
P V Samir
Kalinga Institute of Dental Sciences, Bhubaneswar, Odisha, India

Presentation Type: Oral
Category: Original Research
Introduction: Early childhood caries is an insidious condition seen in toddlers and pre-schoolers. Its high morbidity affects their quality of life. Earliest intervention on the part of health professionals is necessary, as the eruption of the first teeth and onset of 1st window of infectivity period is in infancy.
Objective: To evaluate and compare the knowledge, awareness and practice of the paediatricians with the AAPD recommended guidelines for infant oral health care.
Methodology: A cross sectional exploratory study was carried over 100 paediatricians categorised into 2 groups through randomised sampling of 143 from Bhubaneswar and Cuttack.
Results: Frequency, percentage and chi-square tests were used for the statistical analysis. Significant difference (p=0.007) was found between the 2 groups over their knowledge on the age of infants.
Conclusion: Overall both the institution and non institution based paediatricians had a limited knowledge on infant, their dentition and infant oral health care.

Evaluation of mechanical properties of resin composites incorporated with titanium dioxide nanoparticles
D B S L Sindhuja
Vishnu Dental Hospital

Presentation Type: Oral
Category: Original Research
Introduction: Resin composites with dimethacrylate based resin matrix and silica particles as fillers are commonly used. Titanium dioxide nano particles additives are currently under research because of their chemical inertness, good biocompatibility and superior mechanical properties.
Aim: To evaluate mechanical properties of resin composites incorporated with titanium dioxide nano particles.
Methodology: Micro hybrid composite material was incorporated with 0.1% and 0.2% nano to 2 particles of size.

Comparative evaluation of efficacy of various remineralizing agents in carious lesions of primary teeth: An in vitro study
Cerin Susan Thomas
Modern Dental College and Research Centre, Indore, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: In-situ detection of early carious lesions (ECL) using swept source optical coherence tomography (SS-OCT) had promising results. It could also be used to longitudinally monitor remineralization of the same lesions. Comparing remineralizing efficacy of agents in ECL of primary teeth. Twenty extracted primary teeth with smooth surface ECL...
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(ICDAS II score 1 & 2) were randomly allocated to 4 sub-groups (5n) of remineralizing agents. SDF, CPP-ACP, NHP, SF. SS-OCT images of sample of at 0, 2, 6 weeks were visually correlated with histological images at each step. Sub surface remineralization was superior in CPP-ACP followed by Nhp >Sdf >Sf. order of surface remineralization was CPP-ACP=Sdf>Sf>Nhp. SS-OCT could show surface as well as sub surface de/remineralization. Coloured images could even portray the level of crystallization.

Awareness of Indian expectant mothers about prevention of early childhood caries and its correlation: A survey

Puneet Dang
Indian Army

Presentation Type: Oral
Category: Original Research
Introduction: In present scenario early childhood caries (ECC) has become one of the most significant and neglected problem in developing countries. It can be prevented if interception at early stage occurs. For this mothers play a crucial role. This study was conducted to assess awareness of expectant mothers regarding prevention of ECC and its correlation with her education and socioeconomic status.
Materials and Methods: A cross sectional survey was conducted on 100 expectant mothers with a questionnaire about awareness regarding prevention of disease.
Results: In present study about 62% of expectant mothers scored 7 showing that most of them are not aware about prevention of ECC. Mothers awareness regarding prevention of ECC showed statistically significant correlation with her education and socioeconomic status.
Conclusion: Present study showed expectant mothers have inadequate awareness about prevention of ECC. Adequate steps to be taken to intercept development of disease.

Decontamination of GP cones: A comparative study

Vivek Rana
Subharti Dental College, Meerut, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: GP cones are subjected to potential contamination either by micro-organism present in the air or by contacting objects once a box is opened. Thus sterilization of GP cones should be a mandatory protocol to prevent microbial contamination.
Aim: To evaluate the effectiveness of chemical disinfectants for decontamination of GP cones.
Methodology: Forty five GP cones (sample) were taken & divided into two groups: Experimental group (30) & control group (15). Experimental group was further divided into two subgroups (2 % glutaraldehyde & 4% sodium hypochlorite). Normal saline served as control group. Bacillus subtilis spores were used to artificially contaminate the cones. The effectiveness of disinfectant was assessed by microbiological assay at different time interval.
Results and Conclusion: Both the chemical solution were effective as disinfectant. Glutaraldehyde showed more efficacy compared to sodium hypochlorite.

Behavioural comparison among children on separation from mothers while dental treatment

Arvind Kumar
Buddha Institute of Dental Sciences and Hospital, Patna, Bihar, India

Presentation Type: Oral

Category: Original Research
Introduction: A controversial aspect of pediatric dentistry is parental presence in dental operatory, some pedodontist exclude while some keep parents and child together.
Aim: To evaluate the effect of separation from mother on the behaviour of children undergoing dental treatment.
Methods: This randomized clinical trial study was approved by ethical committee and was conducted on 30 preschool children between ages 48-60 months. Children were divided in to two groups randomly of fifteen each. The quantification of children behaviour was based on Frankel’s behaviour rating scale.
Results: In Group I one child exhibited definitely negative, four negative, five positive and five definitely positive behaviours. In Group II five children exhibited definitely negative, eight negative, two positive and none of them exhibited definitely positive behaviour.
Conclusion: It has been established that mother’s presence, is important for successful child dental care.

Educational and motivational training oral hygiene programme for hearing and speech impaired children

Chaitali Keshav Mirajkar
Government Dental College, Aurangabad, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: Oral health plays a vital role in overall well being of children. Maintenance of proper oral hygiene in hearing and speech impaired children is challenging due to their communication barriers.
Aim: The study was designed with the aim to educate, train and motivates hearing and speech impaired children regarding oral hygiene care.
Materials and Methods: 50 children with hearing and speech impairment were included in this study. A specially designed methodology was used in their education and training. The plaque status was recorded using the plaque index given by Silness J. and Loe H. in 1964. Plaque status was reassessed after 1 week, 3 weeks and 6 weeks. The statistical analysis of the data was done.
Results: A significant reduction in plaque scores was seen along with improvement of oral hygiene. The test showed P.

Evaluation of staining potential of silver diamine fluoride and influence of potassium iodide on dental hard tissues: An in vitro study

Sruthi Konatham
Marnata Dental College and Hospital , Khammam, Telangana, India

Presentation Type: Oral
Category: Original Research
Aim: To evaluate the staining potential of silver diamine fluoride (SDF) and the influence of the potassium iodide (KI) application on the degree of staining over time.
Methodology: Twenty extracted carious primary molars were collected and sorted in to pairs matched by tooth type, size and location of the carious lesion. Teeth were stratified to receive either 38% SDF, KI immediately after SDF application, or 12% SDF, KI immediately after SDF application, or 12% SDF. Stratified timelapse photography and image processing software was used to evaluate staining over a period of 7 days.
Results: The use of KI immediately after SDF application resulted in no staining of the carious dentin or surrounding enamel. No significant differences were evident in the staining potential between the different SDF concentrations (38% and 12%).
Conclusion: SDF has the ability to stain dental hard tissues and its staining potential may be modified by application of KI.
Assessment of oral health related quality of life in patients suffering from systemic diseases
Kavita Dhinsa, Sonali Saha
Sardar Patel Post Graduate Institute of Dental and Medical Sciences, Lucknow, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Background: Children with systemic diseases have higher risk of dental diseases. They have greater difficulties in performing the effective oral hygiene practices. However, till date there are very few studies that have considered the impact of dental diseases on quality of life.
Aim: To assess the oral health related quality of life (OHRQOL) among children suffering from congestive heart failure (CHF) and bronchial asthma in Lucknow city.
Methodology: Patients aged 6-12 years were assessed using child perception questionnaire (CPQ). DMFT was assessed in same patients to measure their caries experience.
Results: Dental caries were observed in 62.6% of cardiac patients followed by 55.8% in bronchial asthma patients.
Conclusion: Children with CHF had high dental caries experience as compared to asthmatic patients. Due to high caries exposure they had a negative impact on OHRQOL as compared to others.

Comparison of dental age among individuals with different facial growth patterns
Parul Jain
Army Dental Corps

Presentation Type: Oral
Category: Original Research
Introduction: Prediction of growth and the velocity at which growth will take place has to be individualised.
Aims: The purpose of the present study was to compare dental maturation in subjects with different facial growth patterns and to find out the influence of gender on the same.
Methods: Lateral cephalograms of 140 subjects were measured for SN-GOGN angle, LAFH, and JR. using the selection criteria, the final sample size was 96 (51 males and 45 females; 7-14 years) distributed into three groups (average, horizontal and vertical) on the basis of facial growth pattern. A double blind determination of dental age was performed on panoramic radiographs using Willems method. Data was subjected to statistical analysis.
Results: Males with vertical facial growth pattern showed statistically significant results when compared to males with average and horizontal facial growth patterns.
Conclusions: Males with a predominantly vertical growth pattern showed advanced dental maturation.

Assessment of knowledge and attitude concerning child abuse and neglect in undergraduate BDS students
Sadhaf Ghani
Dr. Ziauddin Ahmad Dental College, AMU, Aligarh, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Aim: The purpose of this study was to investigate the dental student’s observation, educational experience and knowledge with regard to child maltreatment. It is a serious public and scientific problem present in all socioeconomic groups.
Materials and Methods: The cross-sectional survey was conducted by providing a questionnaire to third year, final year students and interns of Dr. Z. A. Dental College, AMU, Aligarh, participation in this study was voluntary, with an informed consent.
Results: Data was coded and entered into an SPSS (statistical package for the social sciences, V. 22) and analyzed by using descriptive analyses for responses to each question.
Conclusion: The quality of dental education provided to the undergraduate dental students does not provide sufficient awareness regarding child maltreatment.

Evaluation and comparison of treatment outcomes of diode laser pulpotomy and formocresol pulpotomy in primary molars: An in vivo study
Pallavi Shrivastava
Inderprastha Dental College and Hospital, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Formocresol is the most preferred pulpotomy medicament. However, concerns have been raised due to it’s mutagenic, toxic and cariogenic potential. Alternatively, diode laser has been proposed and found to suitably fit pulpotomy needs and offers additional benefits like minimal or no bleeding, quick healing and reduced postoperative infection.
Aim: To compare and evaluate the clinical and radiographic success of diode laser (DL) pulpotomy and formocresol (FC) pulpotomy.
Methods: 20 Primary molars from 3 to 8 year old children were taken in each group. DL and FC were used for pulpotomy. Clinical and radiographic evaluation was done at 3, 6 and 9 months.
Results: After 9 months follow-up a clinical success rate of 85% was seen in FC group and 95% in DL group and radiographic success rate was 90% in both groups.
Conclusion: The study concluded that DL can be used as an alternative to FC for pulpotomy.

Antioxidant and anti-inflammatory assessment of intracanal medicament containing oregano essential oil: An in vitro study
Shreya Johari
Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Intracanal medicaments are used as an adjunct to cleaning and shaping, to eliminate remaining microorganisms from root canals. As conventional formulations have many disadvantages, medicine based on plant extracts are explored due to broad range of therapeutic effects.
Aim: To assess antioxidant and anti-inflammatory activity of intracanal medicament (ICM) containing oregano essential oil (OEO).
Materials and Methods: Antioxidant activity of ICM containing OEO was assessed using DPPH scavenging assay and anti-inflammatory activity was assessed using raw 264.7 cells.
Results: DPPH activity for ICM containing OEO showed IC50 value of 60.48 ug/ml whereas standard showed 6.981 ug/ml. ICM containing OEO treated on raw 264.7 cells showed anti-inflammatory activity of IC50 value of 93.34% whereas standard showed 15.58 ug/ml.
Conclusion: ICM containing OEO shows both antioxidant and anti-inflammatory activity. Hence, it can be used as inter-appointment intracanal medicament.

Use of customized mucosal vibrator in depletion of pain apprehension during la administration in children
Sohan V Devkule
Daswani Dental College and Research Centre, Kota, Rajasthan, India
**Abstracts**

**Presentation Type: Oral**  
**Category: Original Research**

**Background:** Pain is highly subjective and it is neurologically proven that stimulation of large diameter fibers example using appropriate coldness, warmth, rubbing, pressure or vibration can close the neural gate so that the central perception of itch and pain is reduced. This fact is based upon gate control theory of Melzack and wall.

**Aim:** To investigate the effect of vibration stimuli on pain experienced during local anesthetic injections.

**Methods:** 30 patients aged 6-12 years old of both the genders with Frankel’s behavior rating scale as positive and definitely positive requiring bilateral local anesthesia injection for dental treatment are included in the split mouth cross over design. SEM scale and Wong Baker FPR scale is used to assess the pain with and without vibration during administration of local anesthesia.

**Results and Conclusion:** Statistical analysis will be obtained and conclusion will be derived after the completion of the study.

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**Evaluation of parental knowledge, attitude and practical behavior of their child’s oral health in Tiruchengode taluk: A cross sectional study**

E K Menaka  
Vivekanandha Dental College for Women, Namakkal, Tamil Nadu, India

**Presentation Type: Oral**  
**Category: Original Research**

**Introduction:** Most parents are unaware about the importance of primary teeth and the role of pediatric dentist regarding child’s oral health.

**Aim:** To evaluate the parental knowledge, attitude and practical behavior of child’s oral health in and around Tiruchengode.

**Methods:** The questionnaire of 20 questions were developed and was given to the parents through their children who were studying in different schools in and around Tiruchengode. Data were collected and used for statistical analysis.

**Results:** The results showed that most parents have good knowledge regarding primary teeth and problems in that affect permanent teeth but they are not aware of effect regarding prolonged bottle feeding, benefits of fluoride, etc.

**Conclusion:** Awareness of parents regarding regular dental visits and preventive treatment are limited. So it will be better to conduct camps across various schools to reinforce the basic knowledge to parents and also their children.

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**A correlation between body mass index and stature to dental, skeletal and chronological age among 7-15-year-old children**

Shannon Samuel  
Christian Dental College, Ludhiana, Punjab, India

**Presentation Type: Oral**  
**Category: Original Research**

**Introduction:** The pilot results show positive correlation between BMI and dental, skeletal and chronological age, while stature of a patient shows no correlation to dental or skeletal age.

**Conclusion:** Any variation in the BMI of a child alters their skeletal and dental development which might change the course of their treatment.

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**Pediatric dentists “do they really exist”?**

Anshu Sharma  
Teerhankaer Mahaveer Dental College and Research Centre, Moradabad, Uttar Pradesh, India

**Presentation Type: Oral**  
**Category: Original Research**

**Introduction:** Recognition of dental specialist among masses is prudent for patient welfare. Pediatric dentistry is relatively a lesser known speciality among masses about which the general awareness is relatively inert.

**Aims:** To determine the awareness of common public about recognition of pediatric dentist as a separate dental specialist for treatment of children teeth.

**Methods:** A total of 50 parents who had children age 1 to 6 years were selected for the study by a predefined criteria. A structured 10 item questionnaire was administered to parents. Data collected was statistically analysed using descriptive analysis.

**Results:** Majority of the parents did not had any knowledge that there is a separate specialist (pediatric dentist) for treatment of children teeth (84%). Knowledge about preventive treatment of children teeth was also negligible.

**Conclusion:** Pediatric dentist as a specialist must be aggressively promoted and effort should be directed to recognize pediatric dentistry as a specialty in society.

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**Molding smiles into perfection**

C Jishad  
H.P. Government Dental College and Hospital, Shimla, Himachal Pradesh, India

**Presentation Type: Oral**  
**Category: Original Research**

**Introduction:** Presurgical nasoalveolar molding (PNAM) was introduced by Grayson et al, to presurgically mold the alveolus, lip and nose in infants born with cleft lip and palate.

**Aim:** A comparative clinical evaluation of efficacy of modified pnam in patients with complete unilateral cleft lip and palate with those treated with conventional PNAM with respect to changes in maxillary alveolus, improvement in nasal symmetry.

**Methodology:** 16 infants with unilateral cleft lip and palate were equally divided into 2 groups. Group 1 (modified PNAM using titantium molybdenum alloy (TMA) wire nasal stent) and Group II (conventional PNAM using stainless steel wire nasal STENT).

**Results:** In both groups, statistically significant (P).

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**Assessment of knowledge and attitude of pediatrician and general dentist towards pediatric dental care**

Shavan Yadav  
Mahatma Gandhi Dental College and Hospital, Jaipur, Rajasthan, India

**Presentation Type: Oral**  
**Category: Original Research**

**Introduction:** Children and young adults often develop deep carious lesion due to poor oral hygiene. Many dental practitioners usually prefer to extract the primary pulpally involved tooth. Dental caries can be prevented if the pediatrician or the family dentist recognizes and encourage good preventive habits and refers appropriately.

**Aim:** The aim of the study is to determine knowledge and attitude of pediatrician and general dentist towards pediatric dental care in Jaipur.

**Methods:** The study was conducted on 100 pediatrician and 100 general
Abstracts

Effect of different dental materials on the release of vascular endothelial growth factor from platelet rich fibrin and changes in its fibrin architecture: An in vitro study

Anam Mushtaq, Moussami Goswami
I.T.S. Dental College, Greater Noida, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Platelet rich fibrinreleases (PRF) used for various dental procedures releases growth factors like VEGF (vascular endothelial growth factor), TGF, IL. Aim: To evaluate the amount of VEGF release from PRF when layered with MTA, biodentine, theracal, 3 mixtatin and GIC along with the influence of their PH on VEGF release.
Methods: Freshly prepared PRF obtained from healthy volunteers was layered over compacted mta, biodentine, theracal, 3 mixtatin and GIC. Exudateswas collected for VEGF quantification with elisa kit and PH estimation. Fibrin architecture of PRF membrane in contact with these materials was seen using scanning electron microscope.
Results: All the materials showed increased VEGF release compared to PRF alone. Statistically significant increase in VEGF release occurred in theracal group compared to control. All materials caused thickening of the fibrin strands when viewed under SEM.
Conclusion: Theracal may be considered as the most appropriate material to be used with PRF wherever indicated for endodontic use.

Dental age estimation using Willems method: A cross sectional study on children in a north Indian city

Joe Mathew Cherian
Christian Dental College, Ludhiana, Punjab, India

Presentation Type: Oral
Category: Original Research
Objectives: The objective of this study was to evaluate the applicability of Willems method for dental age estimation in 6 -15 year old North Indian children.
Methods: The sample for the cross sectional study consisted of 390 OPGS of (215 boys and 175 girls) randomly selected from the patient records of a post graduate training dental college in North India. Exact chronological age of the subject (in years and months) was calculated. The OPGS were used to score the seven mandibular teeth and dental age was estimated using the tables proposed in Willems method.
Results: Significant correlation between the chronological age dental age estimated using Willems method was observed in both males (r =0.90) and females (r =0.87). The mean difference between estimated DA and CA for males was 0.004 ± 1.08 years (p= 0.94). While for females, it was 0.031 ± 1.18 years (p=0.72). Results show no statistical difference between chronological age and dental age estimated using Willems method in the study population.
Conclusion: Willems dental age estimation method without any modification can predict the chronological age of 6-15 year old North Indian children with good accuracy.

Evaluation of quercetin isolated from mulberry plant sources for its antibacterial activity against S. mutans

G Dhananjaya
Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Among the many flavonoids present in the mulberry, quercetin has the ability to act as an antioxidant.
Aim: To isolate the compound quercetin and to determine its activity against Streptococcus mutans.
Methodology: The potent fraction of the extract compound was subjected to HPLC chromatography and LCMS spectroscopy was used to identify the compound. The grown micro-organisms was inoculated into fresh BHI containing various concentrations of the extract and the MIC was recorded as the lowest concentration totally inhibiting the visible bacterial growth.
Results: The maximum zone of inhibition of 8 mm was seen at a concentration of 50?g/well at a concentration of 2.5 mg/ml. Ciprofloxacin, the control drug showed a zone of inhibition measuring 35 mm.
Conclusion: The structure of drugs is closely related to their biological properties. The quercetin showed a good anti-bacterial activity against S. mutans.

Comparison of pain perception between anaesthetic gel application and pre-cooling of the injection site during nasopalatine block using insulin syringe in children

Stacey Thomas
Vinayaka Mission’s Sankarachariyar Dental College, Salem, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Introduction: Pain in the dental operatory invokes dental anxiety and fear in a child. Thus, there is a need to explore strategies for painless injection techniques during la administration.
Aim: To compare the pain perception between anaesthetic gel application and pre-cooling of the injection site during nasopalatine block using insulin syringe in children.
Methods: 20 children aged 4-6 years requiring bilateral treatment of the maxillary primary anterior teeth were chosen. In first visit, benzocaine gel applied for 1 min, in second visit, ICE stick placed for 60 seconds, then nasopalatine block given in both cases using insulin syringe. Flacc and von Bakers Faces scale measured.
Results: Greatest pain reduction was observed in the pre-cooling group with Wong-Baker Faces mean pain score 2.2 and the Flacc pain scale mean score 0.6.
Conclusion: Pre cooling the injection site significantly reduced the pain perception and led to a better behavior management.

Assessing the accuracy of different methods of dental and skeletal age estimation to the chronological age

Gargi Mohanty
Vinayaka Mission’s Sankarachariyar Dental College, Salem, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research
Introduction: Various methods have been used to determine dental and skeletal age, but the query still remains as to which is the accurate.
Aim: To evaluate the accuracy of 3 methods of dental age estimation, and to assess the relationship between the obtained data about dental age, chronological age and skeletal age.
Methods: 20 healthy children in the age group of 7-12 years were taken. Their chronological age was recorded from their dates of birth. Orthopantogram and hand-wrist radiographs in postero-anterior view were taken for each child. OPGS were analysed for dental age
Abstracts

estimation. The skeletal age was assessed from hand-wrist radiograph.
Results: Positive correlation was found between all 3 methods of
dental age estimation & 4 methods of skeletal age estimation to that of
chronological age.
Conclusion: The skeletal age was found to be more positively correlated
to the chronological age in comparison to the dental age.

A novel thermal vitality test: An in vivo study
Kochurani Cyriac
AECS Maruthi Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: The advent of a simple but reliable infrared thermometer
has paved a way for easy assessment of pulp vitality.
Aim: To evaluate and compare the rise in temperature between vital and
non-vital tooth.
Materials and Methodology: Fifteen patients between 5-9 years, with
a suspected non-vital primary molar were selected. The non-vital tooth
and its contralateral tooth were cooled with water and its temperature
was assessed using the DT8220 infrared pen-type non-contact
thermometer. Following which the mouth was kept open for 3 MNTS
and the temperature was assessed again. The result was subjected to
statistical analysis.
Results: A significant difference in temperature was noted in vital tooth.
Conclusion: Thermography using DT8220 infrared pen type non-
contact thermometer is a useful diagnostic technique to determine the
pulp vitality.

Yoga-managing dental anxiety in children
A Sai Nikhita
AECS Maruthi Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Yoga enhances the physical and mental health of an
individual. It has shown to decrease anxiety and calm the mind. Yoga
could be used in managing dental anxiety in children.
Aim: To evaluate and compare the effectiveness of yoga in managing
anxiety in children.
Methods: Forty children between 7-11 years, showing anxiety were
divided into two groups. Children in the experimental group performed
yoga before treatment. Children were assessed for anxiety with RMS
pictorial scale and pulse oximeter before and after intervention. The
results obtained were subjected to statistical analysis.
Results: There was significant reduction in anxiety level following the
practice of yoga.
Conclusion: Yoga exercise can be used as a valuable tool in reducing
dental anxiety in children.

An in vitro study on the effectiveness of four different
surface protective agents on glass ionomer cement
Shreya Tyagi
Christian Dental College, Ludhiana, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: Water is the reaction medium for GIC & therefore water
balance must be controlled to permit sufficient maturation before
the restoration is exposed to the oral environment. To decrease the
vulnerability of GIC to moisture, surface protectors are recommended.
Aim: To evaluate and compare four different surface protective agents:
Vaseline, GC Fuji Varnish, G coat plus and EQUIA coat.
Methods: Specimens of GIC were coated with one of the surface
protective agents. The specimens were immersed into 0.05% methylene
blue dye solution for 24 hours and then rinsed with deionised water
and further immersed into tubes containing 65% nitric acid. Specimens
were filtered and centrifuged. Supernatant was used to determine the
absorbance using a spectrophotometer.
Results: There was a statistically significant difference between control
and GC Fuji Varnish, G coat plus and EQUIA coat.
Conclusion: EQUIA coat was the most effective surface protective
agent (P=0.00002).

A comparative study of the retentive strengths of various
dental cements with stainless steel crown using universal
testing machine in vitro
Wairokpm Bhoomika Devi
Dental College, Regional Institute of Medical Sciences, Imphal, Manipur, India

Presentation Type: Oral
Category: Original Research
Introduction: An in vitro study was conducted to compare the retentive
strengths of four dental cements with stainless steel crown using
universal testing machine.
Aims: To find out the retentive strengths of these four dental cements
using universal testing machine and also the highest among these
cements.
Methods: Forty freshly extracted human molars were selected. These
teeth were divided into four experiment groups with ten teeth each.
Pretrimmed and preconfigured stainless steel crowns were cemented with
dental cements. Retentive strengths were tested using universal
testing machine.
Results: The mean retentive strengths of resin modified GIC, miracle
mix, zinc phosphate and luting GIC were, 10.08 n/Mm2, 12.50 n/Mm2,
15.50 n/Mm2 And 15.94 n/Mm2 respectively.
Conclusion: No statistically significant difference in the retentive
strengths were observed. However, luting GIC has the highest retentive
strength among these four dental cements.

Intercomparison of APDT, laser, antifungal agent and
sodium hypochlorite as intracanal irrigants in reducing
C. albicans
Pallavi Anand
ITS Dental College, Hospital and Research Centre, Greater Noida, Uttar
Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Endodontic infections are polymicrobial in nature
with predominance towards anaerobic species which are dealt with
efficacious disinfection of infected root canals.
Aim: To compare different intracanal disinfection techniques in reducing
Candida albicans counts in root canals of primary teeth.
Materials and Methodology: 24 patients aged 5-8 years old indicated
for pulpectomy of mandibular primary molars were divided as Group
1: APDT, Group 2: Laser, Group 3: 1% clotrimazole and Group 4: 3%
sodium hypochlorite. Samples were collected before and after respective
disinfection techniques using paper points for further microbiological
evaluation.
Results: Group 1, 2, 3 have significantly better results than Group 4.
Conclusion: Clotrimazole proved to be effective against C. albicans
when used as a final rinse with standard irrigation protocol.

Evaluation of root canal morphology of maxillary
permanent second molars using cone beam computed
tomography

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**Abstracts**

**Mahesh Ramakrishnan**
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**Presentation Type: Oral**
**Category: Original Research**
**Aim:** To study the variation in the root canal morphology of maxillary permanent second molars in the Chennai population.

**Materials and Methods:** One hundred CBCT images are randomly selected. The images are examined for the inclusion criteria in maxillary permanent second molars based on Vertucci classification.

**Results:** A total of 170 permanent maxillary second molars were examined in this study. Type 1 is commonly seen in (90.59%), followed by type 3 (4.31%), the mean length of mesiobuccal root of permanent maxillary second molars is 11.69 mm. As for the length of distobuccal root, the mean values are 11.53 mm. The mean distance between the occlusal pit and pulp chamber are 4.36 mm and 4.37 mm in males and females respectively.

**Conclusion:** Type 1 canal morphology is the most common in this particular population. CBCT provide an ideal tool for understanding the canal morphology.

**Teacher’s attitude and awareness of child abuse and neglect: A survey**

**Shalan Kaul**
Government Dental College, Srinagar, Jammu and Kashmir, India

**Presentation Type: Oral**
**Category: Original Research**
**Objective:** Can is one of the most significant international public health problem. Teachers by virtue of their long term engagement with children have greatest opportunity of any professional to observe and act in response to can. So, the current study aimed to investigate teacher’s attitude and awareness towards can, so that necessary training & educational programs about can be imparted to teachers to get the desired responses from them.

**Methods:** A survey was conducted among 200 school teachers of 8 randomly selected schools of Jammu City, J & K India. A structured close ended questionnaire prepared in 2 languages (English & Hindi) comprising of 10 questions was used.

**Results:** Teachers felt strongly about the underlying social value of reporting can. However most teachers reported lack of awareness towards signs & symptoms of can.

**Conclusion:** The results of this study provided much needed insights into the nature & complexity of teachers attitude & awareness towards can. It also illuminated the need for enhancing teacher’s awareness through educational programs.

**Comparative evaluation of static load bearing capacity of conventional composite and fiber reinforced composite in anterior teeth: An in vitro study**

**K Ninu Adison**
Mar Baselios Dental College, Kothamangalam, Kerala, India

**Presentation Type: Oral**
**Category: Original Research**

**Introduction:** Anterior teeth trauma is common in pediatric and adolescent population.

**Aim:** To determine static load bearing capacity of fractured anterior teeth restored with conventional composite, fiber reinforced composite and fragment reattachment.

**Methods:** 45 extracted upper anterior teeth were fractured and divided into three groups. Group a-restored by fragment reattachment, Group b-restored with conventional composite, Group c-restored with conventional composite and fiber reinforced composite as sub-surface restoration. Restored teeth were statically loaded until fracture in universal testing machine.

**Results:** Mean values of Group a, b and c were 83.21, 147.91 and 90.27 respectively which indicates higher load bearing capacity of conventional composite.

**Conclusion:** Conventional composite provide a higher load bearing capacity than other two groups.

**Parental perceptions of oral health and need for dental care in epileptic children: A tertiary care center study**

**Minal Sukumar Salyankar**
Amrita School of Dentistry, Ernakulam, Kerala, India

**Presentation Type: Oral**
**Category: Original Research**

**Introduction:** Epilepsy is a common childhood neurological disorder characterized by recurrent seizures. Not many studies have assessed the oral health and need for dental care in epileptic children.

**Aim:** To give an overview of parent’s perception of their child’s dental health status.

**Methods:** 20-item questionnaire was used to assess parent’s perception of their child’s dental status. Children aged from 2-18 years were included with a physician confirmed epilepsy diagnosis.

**Results:** 40 children were included in the study with a mean age of 6.875. In 33% of the parent’s evaluated, the dental status of their child was rated as bad. Cognitive (p=0.007) and motor (p=0.013) disability was significantly associated with increased risk of perceived bad dental status.

**Conclusion:** Dental hygiene was not properly maintained in epileptic children with cognitive and motor disability as reported by parents.

**Progression of artificial white spot lesion sealed by resin infiltrants in deciduous teeth: A con focal laser microscopy study**

**Rakhi Pious Francis**
Mar Baselios Dental College, Kothamangalam, Kerala, India

**Presentation Type: Oral**
**Category: Original Research**

Minimally invasive dentistry evolving dynamics.

**Aim:** To evaluate the ability of resin infiltrant by con focal laser scanning microscope (CLSM) in sealing the progression of white spot lesion using 3 different techniques.

**Materials and Methods:** 45 exfoliated caries free lower deciduous anterior teeth were collected and white spot lesions (WSL) created. The samples were then randomly divided into 3 equal groups (n=15). Samples in Group a were treated with 2% fluoride gel, Group b were treated with icon, Group c treated with icon followed by fluoride gel. The samples were subjected to PH cycling. Cross sectional slabs were obtained and subjected to CLSM evaluation.

**Results:** The mean values of Group a, b and c was 8.4, 167.5, 482 respectively which indicates greater penetration depth in Group c. Icon with fluoride gel has more penetration depth than icon and fluoride gel separately thereby indicating greater sealing capacity of the former.

**Oral health status and hygiene practices among vagabonds of Lucknow: A cross sectional descriptive study**

**Pankaj Taneja**
Chandra Dental College and Hospital, Lucknow, Uttar Pradesh, India

**Presentation Type: Oral**
Abstracts

Category: Original Research

Introduction: Street children are at an increased risk for specific health problems including dental caries.

Aims and Objectives: This study was done to assess oral hygiene practices and DMFT status of street children of Lucknow.

Materials and Methods: A cross sectional descriptive study was conducted among 192 street children using DMFT & DMT indices. Preformulated questionnaire was used to collect data about their oral hygiene habits.

Results: The mean DMFT value obtained was 0.32±0.848 for boys and 0.06±0.118 for the girls. In the deciduous dentition a mean DMFT of 0.23±0.652 and 0.43±0.754 was recorded for the boys and girls respectively. Majority of children were using toothbrush (78%) and toothpaste (80.37%) for maintaining oral hygiene. A significant association between DMFT and frequency of brushing & DMFT and brushing aids was found.

Conclusion: Oral health of street children of Lucknow area was satisfactory but required more enforcement towards oral hygiene practices.

Smile with all your heart
Rutu Bharathbhai Patel
Narsinhbhai Patel Dental College and Hospital, Visnagar, Gujarat, India

Presentation Type: Oral
Category: Original Research

Introduction: The importance of excellent oral health is known to be crucial in children with congenital heart diseases (CHD). Oral health is an important consideration from the time the first tooth erupts because of the risk of infective endocarditis.

Aim: To investigate the oral health of pediatric cardiac patients and compare it with age and gender. Material: – A total of 100 children with CHD aged 0-14 years examined and demographical data, cardiac diagnosis and OHI-S and DEFT/DMFT indices of the patients were recorded.

Results: Caries experience varied among the various age groups. However, the mean dmft and DMFT were slightly higher in the older age group than the younger age group. No statistically significant difference in gender.

Conclusion: Children with CHD are at risk from dental disease, the primary focus should be on creating awareness, improvement of oral hygiene and dietary counseling.

Comparative evaluation of effectiveness of tens application through meridian energy pen and 2% lignocaine gel as an intraoral topical anaesthetic agent in children: An in vivo study
Pranjali Deulkar
Sharad Pawar Dental College, Wardha, Maharashtra, India

Presentation Type: Oral
Category: Original Research

Introduction: The importance of excellent oral health is known to be crucial in children with congenital heart diseases (CHD). Oral health is an important consideration from the time the first tooth erupts because of the risk of infective endocarditis.

Aim: To evaluate and compare effectiveness of tens through meridian energy pen in comparison with 2% lignocaine showed same effectiveness and efficiency in reducing pain sensation.

Conclusion: Tens through meridian energy pen in comparison with 2% lignocaine showed same effectiveness and efficiency in reducing pain sensation.

Mesiodens: Prevalence and characteristics in pediatric population, New Delhi, India: A clinical and radiographic study
Kusum Bharti
K.D. Dental College, Kota, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research

Introduction: The biggest fear of a child is of needle prick of intraoral injections. Topical anaesthetic has an inherent role to decrease the pricking pain sensation. Many studies have been done on them with comparative and conflicting results. However, with the changing trends there always arises a scope for alternate medicine.

Aim: To evaluate and compare a herbal gel and 2% lignocaine gel as an intraoral topical anaesthetic agent.

Methods: In this split mouth study design, 30 children were selected and divided into Group a (2% lignocaine gel) and b (herbal gel). Data was recorded using facial pain scale “revised, sound, eye, motor (SEM) scale and hemodynamic measurements.

Results: In reducing pain perception FPS-R, SEM scale and hemodynamic measurements were reliable indicators to prove the level of significance (P).

Prevalence of early loss of primary molars among school going children aged 5-9 years in Bangalore city: A cross-sectional study
Isha Khurana
V.S. Dental College, Bengaluru, Karnataka, India

Presentation Type: Oral
Category: Original Research

Introduction: Primary teeth play a significant role in establishing permanent occlusion and are the best space maintainers. The main
Aim: To evaluate the prevalence of early loss of primary molars among school children aged 5-9 years in Bangalore.

Materials and Methods: A cross-sectional study was conducted among randomly selected 100 children aged 5-7 years and 100 children aged 7-9 years enrolled in public and private schools in Bangalore city. Data including age, sex was recorded. The early loss of primary molars was recorded, classifying the status of primary molars as follows (who oral health assessment form for children 2013): Score status a - sound b - caries c - filled with caries d - filled, no caries e - missing due to caries f - fissure sealant g - fixed dental prosthesis/crown.

Results: The prevalence of early loss of primary molars was higher in 7-9 year-olds than 5-7 year-olds, lower first primary molars were the most commonly affected teeth.

Conclusion: Prevalence of premature loss of primary molars was high. Assisted toothbrushing by parents until 7 years can be the probable reason for comparatively lesser number of teeth affected among 5-7 year-old children.

Restorative dentistry with colour tints: A child’s desire

Aishwarya Jain
K.M. Shah Dental College and Hospital, Vadodara, Gujarat, India

Presentation Type: Oral
Category: Original Research

Introduction: It has been and is always difficult to motivate children who are afraid of dental treatments or show poor home care amenability. So, coloured composite were designed for children.

Aims: The aim of the study is to assess the preference of coloured restorative material in 3-12-year-old children.

Methods: A survey was conducted where children were divided into 3 groups depending on age, Group 1 (3-6 years) Group 2 (7-9) Group 3 (10-12 years). Class 1 cavity preparation followed by different coloured composite restoration of fluo and pearl Jen-rainbow were done on typodont. All the preferences were recorded according to acceptability and attractiveness.

Results: 76.2% girls accepted pearl pink and clear red and 71.2% boys accepted fluorescent green and blue colour.

Conclusion: Childrens preferences for coloured composite differ by various age and sex. It can also be used as motivational tool.

Evaluation of the effects of different modes of application of etchant during pit and fissure sealant procedure, amount of time required for remineralization of the etched surface and assess the effect of different remineralizing agents: An in vitro study

Bridget Grace
Nair Hospital Dental College, Mumbai, Maharashtra, India

Presentation Type: Oral
Category: Original Research

Introduction: Proper technique of etching prior to pit and fissure sealant is mandatory to prevent demineralization of tooth surface outside the margin of pits and fissures, thus reducing subsequent chance of caries and failure of the treatment. Remineralization after sealant application must be considered to prevent further caries.

Aim: Assess the effect of etching technique on amount of surface demineralization, the time required for remineralized tooth surfaces to remineralize, to find out which remineralizing agent is more effective.

Methods: 45 premolar teeth divided into 3 groups of 15 each according to technique 1:- Applicator tip 2:- 30 gauge needle 3:- Straight probe following etching, the sample studied under SEM 15 sample divided into 3 groups a- Artificial saliva b- Tooth mousse c- Clinpro tooth crá’mee. Samples further studied on SEM after 4 days of remineralization.

Results and Conclusion: Significant results were found.

Brush and gain: A novel remineralisation approach for incipient carious lesions

R Khandelwal Jayesh
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Presentation Type: Oral
Category: Original Research

Introduction: Phenomenon of reversal of incipient or early enamel caries forms an important part of prevention leading to apparent repair of the lesion. Recently novel biomaterials like bioactive glass and nano-hydroxyapatite crystal have been introduced as remineralizing agents.

Aim: To evaluate and compare remineralizing efficacy of bioactive glass agent and nano-hydroxyapatite dentrifices on artificial carious lesion in primary teeth.

Methods: 30 human extracted primary teeth were selected for the study and specimens were randomly divided into; Group a: Bioactive glass toothpaste, Group b: Nanohydroxyapatite toothpaste. The surface microhardness (SMH) of the teeth were measured using vickers microhardness tester at the baseline, after demineralization and remineralisation.

Results and Conclusion: Statistical analysis was done using two-sided two-sample t-test. Bioactive glass and nanohydroxyapatite dentrifices had efficient remineralizing property on artificial carious lesion of primary teeth with no significant difference in their efficacy.

Antioxidant: A newer pulpotomy medicament

Milind Prem
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Presentation Type: Oral
Category: Original Research

Introduction: Pulpotomy agents are used to maintain vitality of radicular pulp tissue left in the procedure. Anti-oxidant mix can be used as a pulpotomy agent as they appear to be effective in successful treatment of wound healing.

Aim: To compare performance of anti-oxidant mix (oxyfruit 40) and MTA as pulpotomy agent with respect to parameter like tenderness on percussion, patient discomfort and normal tooth mobility in 6-9 year old children.

Methods: Study comprises of 10 patients: 5 in experimental and 5 in control group. The standardised pulpotomy procedure is performed following which in experimental group anti-oxidant mixed with normal saline is placed and in control group MTA is placed. This is followed by application of zinc oxide eugenol and coronal seal using glass-ionomer cement. Both clinically and radiographically all cases are evaluated.

Results and Conclusion: Study is ongoing and results still to be calibrated.

Playing it smart!

J S Sujith Kumar
PMS College of Dental Science and Research, Thiruvananthapuram, Kerala, India

Presentation Type: Oral
Category: Original Research

Silver modified atraumatic restorative technique (SMART) involves caries removal followed by silver diamine fluoride (SDF) application and placement of GIC restoration.
Abstracts

**Aim:** To compare disinfectant ability of SDF on residual cariogenic bacteria as interim therapeutic restoration.

**Methods:** The study was done in 6 teeth; 3 in SDF followed by GIC restoration (test), 3 in type II GIC restoration (control). Isolation of tooth and collection of first dentinal sample from centre of lesion; second sample after caries removal. Depth of cavity recorded with k file for future re-entry. Both groups are restored as explained earlier. Patients recalled after 3 months; third sample was collected after restoration removal. The collected samples were transferred to laboratory. Total viable count, S. mutans and lactobacillus count was assessed and statistically analysed to find antibacterial efficacy of SDF.

**Results:** There was reduction in bacterial count.

**Conclusion:** SDF was a potential disinfectant against residual cariogenic bacteria.

**Comparative analysis of efficacy of remineralising potential of two dentifrices on enamel surface: An in vitro study**

**Madhura Joshi**

SDM College of Dental Sciences and Hospital, Hubli, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

Carious process is continuum from the first dynamic changes in hydroxyapatite crystals to visible white spot lesion. This makes it necessary to prevent hydroxyapatite to modify its structure.

**Aim:** To compare the potential effect of remineralisation of enafix and toothmin dentifrice on the artificially demineralised enamel surface of primary maxillary central incisors.

**Methods:** 30 extracted primary central incisors were sterilised and stored in artificial saliva and subjected to cyclic demineralisation and remineralisation. The samples were grouped with 10 each as I II and III of enafix, negative control and toothmin respectively. Remineralisation was done using respective agents every 24 hours for 10 days. Each sample was then ground separately and estimation of the calcium and phosphate by weight percentage was done using energy dispense X ray beam technique.

**Results:** The weight percentage of hydroxyapatite crystal (p= 0.036) is estimated to be higher in enafix than toothmin indicating that enafix shows higher efficacy.

**Clinical evaluation of resin infiltration treatment on white spot lesions in primary teeth**

**Madhuri Nagaraj**

Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

Introduction: Resin infiltration as a treatment protocol for treatment of incipient caries in primary teeth has not been studied.

Aim: To clinically evaluate resin infiltration for treatment of white-spot lesions in primary teeth.

Methodology: Healthy children with incipient carious lesions (ICDAS-1 & 2) on labial surfaces of primary anterior teeth were included. Oral prophylaxis was done & diagnostig values were recorded (T0). The selected teeth were subjected to resin infiltration and diagnostig values were recorded immediately after (T1) and 1 week after post-operatively (T2).

Results: 13 teeth in 5 children were restored using resin infiltration. Statistical significance was seen between T0 & T1. (P=0.001) and T0 & T2 (p=0.008). There was no statistical significance between T1 & T2. Conclusion: Resin infiltration can be used to treat white-spot lesions in primary teeth.

**Evaluation of effect of silver diamine fluoride on plaque PH: An in situ study**

**Navami Gopan**

Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

Introduction: SDF has been extensively studied for its antibacterial effect, but not on plaque PH. Hence, the aim of the study was to evaluate the effect of SDF on plaque PH.

Methods: IN an in situ study, 17 subjects aged 20-30 years wore mandibular Hawley’s appliances with an embedded enamel block of 5 x 5 mm. After overnight wear, the baseline plaque was collected the following day. The enamel blocks were subjected to cariogenic challenge, SDF application and then plaque samples were collected at 2, 6, 12 and 24 hours, stored in a temperature of -20 degree, following which PH was measured.

Results: Baseline PH (T0) was 7.4, while PH at 2, 6, 12, 24 hours were 7.37, 7.24, 7.10 and 7.07 respectively, that was statistically significant.

Conclusion: SDF has an effect on plaque PH making it more neutral.

**Comparative evaluation of the compressive strength and diametral tensile strength of a conventional glass ionomer cement and a glass hybrid GIC**

**Swarali Bharat Shah**

Bharti Vidyapeeth Dental College and Hospital, Pune, Maharashtra, India

**Presentation Type:** Oral

**Category:** Original Research

Introduction: Due to inadequate physical properties of conventional GICS to resist occlusal forces, several modifications are being made of which EQUIA forte system is one that has a novel glass hybrid system.

Aim: To compare and evaluate the compressive strength and diametral tensile strength of a conventional GIC and glass hybrid GIC.

Methods: 10 specimens of each material were made, by manipulating the cements according to the manufacturers instructions. They were then subjected to thermocycling and tested in an universal testing machine at a crosshead speed of 1.0 mm/min for CS and 0.5 mm/min for the DTS test.

Results: The difference in the compressive strength and diametral tensile strength of both the materials is not statistically significant.

Conclusion: Although the differences in the values were not found to be statistically significant, conventional GIC possessed greater compressive and diametral tensile strength.

**Ancient meets contemporary**

**Karanam Sindhu**

SDM College of Dental Sciences and Hospital, Hubli, Karnataka, India

**Presentation Type:** Oral

**Category:** Original Research

Plaque plays crucial role in gingivitis hence plaque control is necessary which is keystone for good oral hygiene. Chemical agents in mouthwash must be effective at eliminating pathogens without undesirably impacting the normal flora.

Aim: 1. To determine effectiveness of saline, ayurvedic concoction (ORO T) and chlorhexidine mouthwashes on plaque accumulation and gingival inflammation in children. 2. Compare the efficacy of ayurvedic and chlorhexidine mouthwash.

Methods: 45 volunteers were grouped into Group I (n=15) saline, Group II (n=15) ORO T and Group III (n=15) chlorhexidine. The baseline plaque index and gingival index were taken. They were instructed to rinse twice daily using 5 ml for 60 sec of respective solutions. On day 14, indices were retaken.
Results: ORO T (P=0.024) had lesser plaque accumulation compared to chlorhexidine. But unlike the plaque score gingival index had no significant difference (P=0.05).

**Comparative evaluation of 0.9% normal saline, 3% NAOCL with 3% hydrogen peroxide, 17% EDTA and Q MIX 2 in 1 as root canal irrigating solutions in primary teeth: An *in vitro* pilot study**

*B* Pavan Verma  
SDM College of Dental Sciences and Hospital, Hubli, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Aim:** To assess the efficacy of 0.9% saline, 0.3% NaOCl with 3% H.O.₂, 17% EDTA and Q mix 2 in 1 irrigating solutions in removing smear layer in primary teeth and scanning electron microscope.  
**Materials:** 20 single root human primary teeth extracted for therapeutic reasons, above mentioned irrigating solutions, k-files, irrigating syringes, paper points, chisel and mallet, scanning electron microscope.  
**Methodology:** The samples were cleaned and stored in 10% formalin. Samples were randomly divided into 4 groups of 5 teeth each. After instrumentation and irrigation using 0.9% saline, 3% NaOCl with 3% H.O.₂, 17% EDTA and Q mix 2 in 1 irrigating solutions of Group a b c and d respectively. After irrigation samples were dried with paper points. Samples were split longitudinally and were examined under SEM.  
**Results:** Group a and b (P>0.05) did not remove the smear layer effectively, Group c and d removed smear layer effectively (P<0.05).

**Comparative evaluation of compressive strength, flexural strength and wear resistance of centionn with posterior composite resin and glass ionomer cement (type ix): An *in vitro* study**

*K S Fousiya*  
Amrita School of Dentistry, Ernakulam, Kerala, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Centionn is a new tooth colored restorative material.  
**Aim:** To evaluate and compare compressive strength, flexural strength and wear resistance of centionn with posterior composite resin and glass ionomer cement (Type IX).  
**Methods:** Cylindrical mold of dimension 6 mm height and 4 mm diameter were used to fabricate samples of each type of material and compressive strength is tested. Rectangular mold of dimension 25 mm length, 2 mm height and 2 mm width were used to fabricate samples of each type of material and flexural strength is tested. Disc shaped mould of dimension 10 mm diameter and 2 mm height were used be used to fabricate samples and wear resistance is tested.  
**Results:** There is no statistically significant difference between mechanical properties of centionn and composite. Mechanical properties of centionn was significantly higher than GIC.  
**Conclusion:** Centionn can be used in various restorative procedures in daily dental practice as basic filling material.

**A comparison of findings to assess the prevalence of dental caries based on DMFT and ICDAS II in school going children aged 6-12 years, in the city of Davangere, Karnataka, India: A cross sectional study**

*Harini A Krishnan*  
College o, India f Dental Sciences, Davangere, Karnataka, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** There is a need of a diagnostic index that addresses the advanced stages of untreated caries lesions to have an impact on health decision makers.  
**Aim:** To assess and compare the prevalence of dental caries based on the DMFT and ICDAS II criteria on school going children aged 6-12 years.  
**Methodology:** A cross sectional study was conducted on 942 school children aged 6-12 years from the North and South zones of Davangere. Type II who dental examination was done for dental caries using DMFT and ICDAS II criteria.  
**Results:** The caries prevalence at ICDAS cut off point 1 was 94.5%, at cut off point 2 was 86.6% and at cut off point 3 was 82.0%. The caries prevalence according to DMFT was 89.4%.  
**Conclusion:** The prevalence of dental caries was similar based on both the DMFT and ICDAS II methods. However, the ICDAS II provided a better insight on the severity of the lesion.

**Effect of CPP-ACP, resin and colloidal silica infiltration on surface microhardness in artificial white spot lesions in primary teeth**

*Aranta Chindane*  
Bharati Vidyapeeth Dental College and Hospital, Pune, Maharashtra, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Infiltration of early enamel lesions by materials having remineralizing potential can arrest caries progression.  
**Aim:** To evaluate and compare the efficacy of CPP-ACP, resin and colloidal silica infiltrate on surface microhardness in artificially created white spot lesions in primary teeth.  
**Materials and Methods:** Enamel surfaces of primary teeth were exposed and embedded in acrylic resin blocks. The samples were randomly distributed into 3 groups and exposed to a demineralizing solution to create artificial white spot lesions, after which the following agents were applied: Group 1- Icon, Group 2- tooth mousse and Group 3- colloidal silica infiltration. The impact of these agents on the surface microhardness was examined using Vickers microhardness testing. All the data collected were subjected to statistical analysis.  
**Results:** The resin infiltration group showed a statistically significant result compared to other groups.  
**Conclusion:** Resin infiltration is promising and effective when compared to other agents.

**Association between hormonal fingerprints, BMI and eruption period of permanent first molars and incisors among children of 5–9 years of age in Chidambaram town**

*V Sandhiya*  
Rajah Muthiah Dental College and Hospital, Annamalai University, Cuddalore, Tamil Nadu, India

**Presentation Type:** Oral  
**Category:** Original Research  
**Introduction:** Hormonal fingerprint is a new biological marker for many diseases and associated with androgen sensitivity. It is the ratio of second digit and fourth digit.  
**Aim:** To determine the association between hormonal fingerprints, BMI, tooth eruption and malocclusion.  
**Methodology:** 326 randomly selected children were examined in the present study. Weight, height and length of second and fourth digit were measured. BMI and hormonal fingerprint ratio were calculated. Examination of the oral cavity was done to assess malocclusion and
the eruption status of permanent molars and incisors. The results were tabulated and analysed for significance using chi square test. 

Results: In the present study there was a positive correlation between subjects with higher hormonal fingerprint ratio and malocclusion. 

Conclusion: Hormonal fingerprint may be used as a valuable predictors of dental malocclusion in children.

Comparative evaluation of proximal composite resin restorations in primary molars with different matrix systems: An in vivo study

E M Henna Basheer
College of Dental Sciences, Davangere, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Restorations with proper proximal contour and contact is needed for the periodontal health of a tooth.

Aim: To evaluate and compare proximal contour and ledge formation radiographically and tightness of contact with the help of dental floss in composite restorations in primary molars using different matrix systems.

Methods: Thirty nine primary molars were randomly selected to receive restorations with Group I: Straight metal matrix coupled with tofflemire retainer and wooden wedge; Group II: Saddle contoured metal matrix with spring clip and wooden wedge; and Group III: Fendermate prime matrix. Bitewing radiograph was examined for proximal contour and ledge, clinically tightness of contact checked.

Results: The proximal contour of Group II showed statistically significant difference. No statistical difference in proximal contact tightness and ledge formation.

Conclusion: Use of the saddle contoured matrix produced good proximal contour.

Effect of low level laser on LI4 acupoint in pain reduction during local anesthesia in children: A randomized clinical trial

Ramoli R Pawar
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Presentation Type: Oral
Category: Original Research
Aim and Objective: To compare and evaluate the effect of low level laser on LI4 acupoint and surface acting 20% benzocaine gel during local anaesthesia.

Methodology: Children age between 6-9 years requiring dental treatment under local anaesthesia were selected. In Group I low level laser was used on acupoint LI4 along while giving local anaesthesia and in Group II 20% benzocaine was applied during local anaesthesia. Pain was evaluated during the procedure using SEM and Wong bakers faces pain rating scale in both groups and was statistically evaluation was done.

Results: Low level laser acupuncture was effective in reducing pain during local anaesthesia. 

Conclusion: Stimulation of acupoint LI4 reduces pain during local anaesthesia.

Smart files for smart kids
Silky Mehta
JN Kapoor Dav (C) Dental College, Yamuna Nagar, Haryana, India

Presentation Type: Oral
Category: Original Research
Introduction: Pulpectomy is primarily aimed at debridement of root canals. Various manual/rotary systems are available for instrumentation of root canals exhibiting various degrees of performance.

Aim: To compare efficacy of manual files, rotary prime pedo and protaper files on pain, time taken and quality of obturation during endodontic treatment of primary teeth.

Methods: 36 deciduous molars requiring pulpectomy were randomly divided into 3 equal groups to be instrumented with respective techniques using manufacturers instructions. Post operatively, pain, instrumentation-time and quality of obturation were assessed at 1 week, 3 week and 3 month recalls.

Results: Statistically non significant results were obtained on evaluation of postoperative pain with either of the methods. Intergroup comparison exhibited statistically significant results on comparing instrumentation time and quality of obturation.

Conclusion: Best results were exhibited by prime pedo files followed by protaper files, lastly by manual files.

Evaluation of the apical sealing ability of three root canal filling materials in primary teeth: An in vitro study

Dilip Eknath Gadhe
SMBT Dental College, Sangamner, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Introduction: The purpose of the obturating material is to prevent the reinfection of root canals that have been biomechanically cleaned, shaped and disinfected by instrumentation, irrigation and medication procedures. Tubular penetration, adaptation and hermetic seal can determine the success of the root canal fillings in primary teeth.

Aim: To evaluate the sealing abilities of three root canal filing materials under stereomicroscope by dye penetration method.

Methods: 30 single rooted primary teeth, after AO and BMP were divided into 3 groups, each containing 10 teeth. They were then obturated with ZOE, endoflas and metapex respectively. After this they were subjected for dye penetration under stereomicroscope.

Results: Dye penetration was observed with ZOE and endoflas under stereomicroscope, where as metapex manifested no dye penetration.

Conclusion: Metapex manifested no percolation of dye in the obturated teeth because of presence of oil in it, considering it as better obturating material.

It’s a perfect fit
Santhosh Priya Akr
Ragas Dental College and Hospital, Chennai, Tamil Nadu, India

Presentation Type: Oral
Category: Original Research

To evaluate the effect of nitrous oxide sedation on childs behaviour, post operative complications, attitude of dentist and parents with sedation using silhouette mask. A total of 40 children within age group 6-10 years requiring dental treatments under conscious sedation were included in the study. Behaviour modifications, level of acceptance, post operative complications was observed. At the end of the treatment questionnaire was given to the caretaker to evaluate the parental satisfaction towards the treatment. Results showed mask was comfortable and 92.5% of the children were fully cooperative and dentist was able to place the mask. Comfortably, significant modification was seen in patients behaviour, and 100% of the parents were satisfied about the treatment under sedation with minimal complication. Inhalational sedation with nitrous oxide using porter mask results in effective sedation, with increased patient comfort and acceptance by the parents to provide treatment with less psychological trauma to the child.

Knowledge attitude and practice regarding prevention and management of dento-facial trauma amongst children playing contact sports in sports complexes in Pune city
Rashmi Gopal Agarwal
DY Patil Dental College, Pune, Maharashtra, India

Presentation Type: Oral
Category: Original Research
Aim: To evaluate knowledge, attitude and practice (KAP) towards prevention and management of dento-facial trauma amongst 12-16 year old children playing contact sports in sports complexes of Pune city.

Objectives: To assess the knowledge, attitude and practice of prevention and management of dento-facial trauma among children playing contact sports.

Methodology: The study will be carried out as a questionnaire study. It comprises of 38 questions. A minimum of 55 completely filled questionnaires will be needed for the sample to be valid and representative. Out of 36 sports complexes in the city 12 sports complexes were located on the map and distributed into four zones. Two complexes from each zone were randomly selected.

Results: Results are awaiting.

Conclusion: We will get to evaluate the knowledge, attitude and practice (KAP) towards prevention and management of dento-facial trauma amongst 12-16 year old children playing contact sports.

Degradation of three resin based restorative materials by Streptococcus mutans
Shubhrata Shrivastava
Rishiraj College of Dental Sciences and Research Center, Bhopal, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: To evaluate & compare the degradation of 3 resin based restorative materials by S. mutans.

Aims and Objectives: To evaluate & compare the degradation of 3 resin based restorative materials by S. mutans.

Methods: Class I cavity prepared in extracted premolars & divided into Group I conventional composite, Group II cention & Group III RMGIC & restored by respective restorative material & divided in 2 subgroups (control & experimental). Experiment subgroup then incubated in 2 ml of BHI with 1:10 dilution of SM whereas control subgroup incubated in BHI. The solution was collected at 2, 14 & 30 days interval & the analysis of BISHPPP was done by HPLC.

Results: Showed increased BISHPPP in the presence of SM in all the tested materials, with minimum in cention and maximum in conventional composite.

Conclusion: Among the tested materials cention appears to be most biostable.

Assessment of knowledge of school teachers about the management of specific emergencies among children in Bagalkot, Karnataka
Tharani
P.M.N.M. Dental College and Hospital, Bagalkot, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Dentistry from the era of amalgam to modern day polymeric resins has advocated considerable progress.

Aims and Objectives: To evaluate & compare the degradation of 3 resin based restorative materials by S. mutans.

Methods: Class I cavity prepared in extracted premolars & divided into Group I conventional composite, Group II cention & Group III RMGIC & restored by respective restorative material & divided in 2 subgroups (control & experimental). Experiment subgroup then incubated in 2 ml of BHI with 1:10 dilution of SM whereas control subgroup incubated in BHI. The solution was collected at 2, 14 & 30 days interval & the analysis of BISHPPP was done by HPLC.

Results: Showed increased BISHPPP in the presence of SM in all the tested materials, with minimum in cention and maximum in conventional composite.

Conclusion: Among the tested materials cention appears to be most biostable.

Comparison of anesthetic efficacy of articaine and lidocaine in a primary intraligamentary injection for vital primary molars: An in vivo study
T Thomas Parakkal
I.T.S. Dental College, Ghaziabad, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Single tooth anesthesia is very useful in children to avoid adverse effects like lip biting. Intraligamentary injection might prove to be an important addition for controlling pain in dentistry. Articaine has been proved to be safe and provides better anesthesia than lidocaine for intraligamentary injections.

Aim: To compare anesthetic efficacy when comparing gold standard IANB with lidocaine against intraligamentary using articaine.

Methods: 70 patients requiring endodontic treatment, in two appointments were randomly allocated. First appointment they received intraligamentary articaine and second visit received IANB lidocaine and vice versa. Pain was assessed using the SEM pain rating scale, modified pain scale and HP-VAS score.

Results: No statistical difference between intraligamentary injection and IANB however the articaine group showed a faster onset of anesthesia when compared to lidocaine group.

Conclusion: Articaine had faster onset of anesthesia and equal anesthesia was obtained when compared to lidocaine.

Fluoride release with surface coatings
Pallavi Pravin Jhawar
Darshan Dental College and Hospital, Udaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research
Introduction: Glass ionomer cement (GIC) is widely used because of its ability to adhere/bond with enamel and dentin without any pretreatment & potential to release of fluoride ions. But its disadvantage is early moisture sensitivity & to overcome this, application of different coatings is done over the surface of GIC immediately after initial set.

Aim: To know the effect of surface protective agents on the fluoride release property of GIC.

Methods: 30 permanent premolar samples were collected, class I cavity was prepared & restored with GIC and randomized into 3 groups of 10 each. Group I were unprotected, II coated with petroleum jelly, III with resin bonding agent. After coating samples were immersed in 3 sealable bottles with coconut water, which was changed every 24 hrs for 15 days to measure fluoride release.

Results: Fluoride release is more in petroleum jelly coat as compared to other groups.

Relative evaluation of three pediatric dentifrices for its remineralizing potential: An in vitro study
Thokchom Chaoba Devi
Rishiraj College of Dental Sciences and Research Center, Bhopal, Madhya Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: Dentifrices are available in different formulations. However concerns over high fluoride in pediatric formulations coupled with inability of the child to spit have led to recommendations minimal quantity of fluoride in the toothpaste. Literature is scarce on the remineralization potential of pediatric dentifrices for the benefit of
Abstracts

children without posing a threat of chronic fluoride toxicity at the same
time.

Aims: To evaluate and compared the remineralizing potential of 3
pediatric dentifrices on artificially induced caries.

Materials and Methods: 15 sound primary canine are divided into
3 groups. Artificial demineralization was carried out, followed by
remineralization using dentifrices slurry as per the group allocation.
All the samples were studied for remineralization under polarized light
microscope AMD a stereomicroscope. Data were statistically analyzed
using repeated measures ANOVA and post hoc test.

Results: The study is under progress.

Conclusion: The study is under progress.

A custom fit boil and bite mouthguard without the need of
a dentist: A new alternative to EVA in the world of
mouthguards

Nirapjeet Kaur
Government Dental College, Amritsar, Punjab, India

Presentation Type: Oral
Category: Original Research
Introduction: A new thermoplastic material polyolefin has been
developed recently as a suitable alternative to EVA for mouthguards.

Aim: To compare and evaluate dimensional stability of EVA -custom
fabricated, new generation custmbite polyolefin and off the shelf boil
and bite mouth guards and its effect on various parameters.

Methods: The study included four groups of players from different
contact sports, each divided into two sub groups. Each player was made
to wear all the three type of mouth guards, each for total 120 hours of
play.

Results: Statistical analysis showed no significant differences
(P=1.000) when the percentage changes in dimensions of EVA-custom
fabricated and custmbite polyolefin mouthguards were compared.

Conclusion: The custmbite polyolefin mouthguards offers all the
positive features of a custom fabricated mouthguards in a boil and bite
form. Hence, they can be recommended in other contact sports.

Know the 3rd eye of the drug

Deepika Chari
K.M. Shah Dental College and Hospital, Vadodara, Gujarat, India

Presentation Type: Oral
Category: Original Research
Introduction: ADR is a response to a drug which is noxious, and
unintended, that occurs at doses normally used in human for prophylaxis,
diagnosis, therapy of disease and modification of physiological function.

Aim: To evaluate the KAP regarding ADR in children among PG
students of pediatrics and preventive dentistry in India.

Methodology: A questionnaire survey was conducted among PG
students registered with ISPPD. A Google form with front cover which
included specified instruction format, informed consent, covering letter
with clear description of the purpose of study and questions in different
categories were mailed.

Results: 90% prescribers completed the questionnaire. The prescribers
had general information about ADR but lacked in the procedure and
detailed information regarding the same.

Conclusion: Under reporting and lack of knowledge about the reporting
system are clearly evident. Organizing orientation program and creating
awareness about ADR reporting may aid in improving the spontaneous
reporting.

Assessment of dental sexual dimorphism in children
using odontometry: A descriptive study

Safina Masroor
College of Dental Sciences, Davangere, Karnataka, India

Presentation Type: Oral
Category: Original Research
Introduction: Teeth are good material due to hardness and high
resistance to degradation and putrefaction which enable the teeth to
survive for longer periods than other human tissues.

Aim: Potential of mandibular canine index, intercanine and intermolar
distance in gender determination in pediatric population in Davangere.

Methods: Maxillary and mandibular impressions of 60 boys and girls
were made using alginate, poured in dental stone and cast boses were
made. Intermolar arch width was calculated from the central fossa of
deciduous second molar on either sides, intercanine width measured
between the cusp tips of right and left mandibular canine using digital
vernier caliper and mandibular canine index was calculated. Data
analysed using unpaired t test.

Results: Statistically significant result found in boys compared to girls.

Conclusion: Mandibular canine index, intercanine and intermolar
distance can be used as an aid in gender determination.

Comparative evaluation of instrumentation time and
extent of obturation in primary teeth using two KEDO-s
and pro AF baby gold rotary file systems used in
paediatric dental practise: An in vivo study

Seema Bargale
K.M. Shah Dental College and Hospital, Vadodara, Gujarat, India

Presentation Type: Oral
Category: Original Research
Introduction: The use of rotary file systems in pedodontics has gained
popularity compared to traditional method using manual file system as it
can lead to undesirable curvatures in root canal morphology.

Aim: To compare pro AF baby gold and KEDO-S rotary files in primary
molars used for paediatric-endodontic dental practise.

Methodology: It was a split mouth study design wherein one side was
prepared using KEDO-S files (Group 1) and the other side was using
prepared pro AF baby gold files (Group 2). instrumentation time was
recorded from the insertion of the first rotary file till the completion of
chemo-mechanicae preparation. The adequacy of the endodontic fill was
recorded as being underfilled, optimal or overfilled.

Results and Conclusion: The statistical analysis was done using Chi square
and ANOVA test. No significant difference was found in either of the
groups and the choice of filing system depends on the operators preference.

Evaluation of oral health status and oral hygiene
practices among Halba tribal children in Bastar division
of Chhattisgarh

Saurav Kumar Prabhak
Rungra College of Dental Sciences and Research, Bhilai, Chhattisgarh, India

Presentation Type: Oral
Category: Original Research
Introduction: The HALBA tribe owes its nomenclature to the term
"HAL that locally means ploughing or farming. These tribal people live
in isolated and inaccessible area, they have low literacy and income.
Since there are no recorded studies on their oral health, this study is
an attempt to gain information on oral hygiene practices and their oral
hygiene status.

Aim: To evaluate the oral health status and oral hygiene practices in
HALBA tribal children of Bastar division, Chhattisgarh.

Methods: A cross sectional study was conducted on 200 HALBA tribal
children of bastar. The oral hygiene practices and oral hygiene status
was recorded using who criteria for oral health survey, 5th edition.
Results: The oral hygiene practices were poor and prevalence of dental caries was high.
Conclusion: There is immense need to improve the oral health and oral hygiene practices of these children by government/institutions.

Comparative evaluation of calotropis gigantea with two other agents as pulpotomy agents in primary molars

Shraddha Jakhar
RUHS College of Dental Sciences (Government Dental College), Jaipur, Rajasthan, India

Presentation Type: Oral
Category: Original Research

Introduction: Pulpotomy technique is most widely accepted clinical procedure for treating primary teeth with coronal pulp inflammation caused by caries with no involvement of the radicular pulp.
Aim: The aim of the study was to evaluate the success and efficacy of ferric sulfate, MTA and Calotropis gigantea as pulpotomy agents both clinically and radiographically.
Materials and Methods: A total of thirty primary molars in children aged between 4 to 10 years, requiring pulpotomy procedure were selected. Random samples distribution was done ferric sulfate, MTA and Calotropis gigantea was used as pulpotomy agents. Under rubber dam isolation, pulpotomy procedure was performed in all samples followed by restoration with stainless steel crown. Later the patients were recalled after 1, 3 and 6 months for clinical and radiographic evaluation.
Results: Calotropis gigantea extract can be used as pulpotomy agent.
Conclusion: Calotropis gigantea can be used as an alternative for pulpotomy agents.

Dental herbalism: An emerging trend

Anushka Waghmare, Deepak P Bhayya
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Presentation Type: Oral
Category: Original Research

Introduction: The efficacy of a sealer is assessed by ability to kill the residual microorganisms present within the root canal system after biomechanical preparation.
Objectives: To compare the efficacy of Moringa oleifera and Carica papaya extracts mixed with zinc oxide powder and zinc oxide-eugenol sealer on the growth of Enterococcus faecalis in root canals.
Materials and Methods: Group 1: Zinc oxide powder mixed with eugenol (control), Group 2: Zinc oxide powder mixed with moringa oleifera extract and Group 3: Zinc oxide powder mixed with Carica papaya extract, are compared as sealers and evaluated against Enterococcus faecalis using agar diffusion test. Then mean zones of inhibition were measured.
Results: Order of zones of inhibition: Group 3 (27.86±.90 MM) > Group 2 (24.57±1.27 MM) > Group 1 (15.86±1.34 MM).
Conclusion: Herbal extracts proved promising in their efficacy within the limitation of this study.

Strengths and difficulties questionnaire: Towards better assessment of children behavior in dental operatory

Heta Rajawadha
SMBT Dental College, Sangamner, Maharashtra, India

Presentation Type: Oral
Category: Original Research

Introduction: Behavioral screening questionnaire, such as strengths and difficulties questionnaire (SDQ), can be used to predict child behavioral pattern in dental clinic.
Aim: To predict the behavior of 6-8 year old children attending dental clinics using SDQ.

Methods: Total of 60 children aged 6-8 years (along with parents) participated in this study. childs conduct, hyperactivity, emotional, peer problems and prosocial behavior were assessed using SDQ. The childs dental behavior was assessed using frankels behaviour rating scale; and was correlated.
Results: Overall, 74.3% subjects have borderline SDQ score, 26.7% subjects have normal score. There was statistically significant (P.

Comparison of various methods of communication for imparting dental health education in children with hearing impairment

Shraddha Marathe
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Presentation Type: Oral
Category: Original Research

Introduction: Children with hearing impairment present dental team with challenge of providing proper oral care due to their communication barrier. They might even lack adequate oral health awareness.
Aim: Present study is intended to compare different methods of communication for imparting dental health education in children with hearing impairment.
Methods: Students were given information regarding oral health and awareness. Group I - booklets. Group II- video with sign language, Group III- both booklets & video, Group IV - control. DMFT, OHI-S and plaque scores were recorded for each student before and after 5 days, collected data was subjected to statistical analysis.
Results: There was significant difference among OHI-S scores. Further post hoc analysis revealed that Group II i.e video group, showed maximum difference over other groups significantly.
Conclusion: The study suggested that sign language was the most effective method of communication in these children.

Prevalence of pre - eruptive intracoronal radiolucencies in the permanent dentition among children of Vikarabad

Mahmooda Farheen, Apirtha Kotari
Sri Sai College of Dental Surgery, Vikarabad, Telangana, India

Presentation Type: Oral
Category: Original Research

Introduction: Pre-eruptive intracoronal radiolucencies (PEIR) is a condition characterized by the presence of radiolucent lesion with varying size located at the coronal dentin of unerupted teeth, adjacent to intact enamel. The diagnosis is usually based on routine panoramic radiographs.
Aim: To determine the prevalence of PEIR in unerupted permanent teeth from orthopantomograms in children of Vikarabad aged 6 -13 years.
Methodology: A retrospective study of PEIR was conducted on 555 orthopantomograms of 271 male and 284 female with an age range of 6 - 13 years. The data was subjected to statistical analysis.
Results: Prevalence of PEIR was 13.15% by subject and 1.9% by teeth.

Developing a new self-reported scale for measuring self esteem in 3-5 year old semi-urban Indian children

Parkshik Shivajirao Kadam
Saraswati Danwantri Dental College and Hospital, Parbhani, Maharashtra, India
Abstracts

Presentation Type: Oral
Category: Original Research
Introduction: Measuring the impact of oral health on the quality of life of children can improve communication between patients, parents and the dental team and can provide an outcome measure for clinicians to assess the quality of care. However, young children understand and respond to questions differently according to their age. Hence we constructed a new questionnaire and response scale which is suitable for 3-5 year old children.

Aim: To develop multidimensional scales for measuring self-reported oral health-related QOL in 3-5 year-old children as well as their parents/guardians perception of their child's oral health-related QOL.

Methods: Sixty children in the age group of 3-5 years having early childhood caries or traumatic dental injuries and their parents responded to a face-to-face administered survey before dental treatment started. Children were, for the purpose of the survey, divided into 3 groups according to their age. Survey consisted of 20 questions for children and 24 questions for parents. Validity and reliability of scale was checked.

Results: Results showed that 14 out of 20 questions were valid and reliable for the 3-5 year old children.

Conclusion: Early childhood caries and traumatic dental injuries have significant role in childrens oral health-related quality of life. Children as young as 3-5 years have self-esteem and they not only perceive their own oral health-related QOL but are also able to communicate the same reliably and validly to adults when age-appropriate scale is used.

NIET: An option or an alternative to conventional endodontic therapy in children??
Anukriti Dimri
Subharti Dental College, Meerut, Uttar Pradesh, India

Presentation Type: Oral
Category: Original Research
Introduction: An important step in endodontic rehabilitation of primary teeth is instrumentation, disinfection of root canals, which is challenging in uncooperative children. However, if canal can be disinfected by a non-instrumental technique, infected pulp will heal by bodys immune system.

Aim: To compare clinical and radiographic success of triple antibiotic paste in combination with four different irrigants.

Methods: 20 carious primary molars requiring pulpectomy were randomly after caries removal: Group 1- saline irrigation, Group 2-20% propolis, Group 3-2% NaOCL, Group 4-2% CHX. Triple antibiotic paste followed by GIC. Follow up-1st week, 1st, 3rd & 6th months for radiographic and clinical success.

Results: Groups 1, 2 and 4-100% clinical and radiographic success at 6 months, Group 3-lower success.

Conclusion: Saline, propolis and CHX can be successfully used as adjuncts to triple antibiotic paste in endodontically involved primary teeth.

Effect of SDF application on the bond strength of composite restoration
Manisha Tyagi
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Presentation Type: Oral
Category: Original Research
Introduction: Silver diamine fluoride (SDF) has been proven as a viable option to arrest caries in young uncooperative patients with high risk. However, to overcome its demerits like black discoloration and restoring the cavity is a big challenge. GIC and composites have been used as intra-coronal restorations to restore such teeth with varying degree of success.

Aim: The study aims to evaluate the bond strength of teeth treated with and without SDF followed by composite restoration.

Methods: 80 extracted carious primary molars were randomly divided into following groups: Group 1 SDF application; 1a; nano composite restoration, 1b; hybrid composite restoration, Group 2 hand excavation-2a; nano composite restoration, 2b; hybrid composite restoration.

Results and Conclusion: Bond strength of nano composite restoration following hand excavation was highest while restoration with hybrid composite following SDF application showed least bond strength.

Silver diamine fluoride - Silver lining for the caries cloud
Shivani Daga
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Presentation Type: Oral
Category: Original Research
Introduction: Traditionally dental caries is treated by surgical restorative approach which is expensive. It has been reported that arresting dentinal caries in primary teeth is possible without restorative intervention using silver diamine fluoride (SDF).

Aim: To evaluate the effectiveness of two different frequencies of application of SDF in arresting active dentinal caries in primary teeth.

Methods: 28 children aged 5-8 with one or more active caries in primary molars were divided into two groups. Group 1 received monthly application of SDF for 3 months and Group 2 received 3 monthly applications for 6 months. No attempt was made to excavate soft caries. All the examination were conducted at 6 months and one year interval. Active caries was recorded when probe could not penetrate dentin.

Results: Group 1 had significantly greater number of arrested caries surfaces on application of SDF followed by Group 2.

Conclusion: Monthly applications had higher caries arrest rate followed by three monthly applications.

Acid etch patterns in primary molars pretreated with deproteinizing gel: An SEM study
Darsana Krishnan
Mar Baselios Dental College, Kothamangalam, Kerala, India

Presentation Type: Oral
Category: Original Research
Introduction: Aesthetic restorations require a generalised retentive morphological condition over the entire enamel surface.

Aim: To evaluate and compare the effect of 5.25% NaOCL gel and solution on surface micromorphological features of acid etched enamel.

Methods: Each group consists of 5 enamel blocks (1 mm SQ) Group 1 enamel surface etched with 37 % H3PO4 for 15 seconds, washed and dried for 10 seconds. Group 2 enamel surface deproteinized with 5.25% NaOCL solution for 120 seconds and acid etched as for Group 1. Group 3 enamel surface deproteinized with 5.25% NaOCL gel for 120 seconds, washed, dried and acid etched as for Group 1. Samples subjected to SEM analysis and evaluated for quality of etching.

Results: No significant effect of 5.25% NaOCL gel on acid etched enamel surface.

Conclusion: 5.25% NaOCL gel couldn’t significantly improve acid etching pattern.

Chicken eggshell powder as a potent biomaterial for enamel remineralisation: A polarised light microscope and energy-dispersive X-ray spectroscopy study
Shivani
Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India

Presentation Type: Oral
Abstracts

**Category: Original Research**

**Introduction:** Calcium and phosphate are the most essential dynamic forces for remineralisation.

**Aim:** To evaluate remineralisation efficiency of chicken eggshell powder (CEP) on demineralised human tooth enamel and compare it with that of casein phosphate amorphous calcium (CPP-ACP).

**Methods:** The chicken eggshells were obtained and processed to obtain a homogenous powder. 3x3 windows were made on 15 extracted human teeth samples and were demineralized for 48 hours, assigned to three study groups (artificial saliva, CPP-ACP and CEP) of 5 teeth each and then subjected to 4 remineralising demineralizing cycles of 2 hours each for 2 days and analysed using PLM and EDX.

**Results:** The calcium levels in CEP samples were higher (0.276) than that of CPP-ACP samples (0.177) but the calcium-phosphate ratio difference was not significant (P=0.874).

**Conclusion:** CEP can be a potential biomaterial for enamel remineralization.

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**Is orphan hood a conduit to poor oral health impact profile: A comparative assessment**

**Satish Babu Banka**
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**Presentation Type:** Oral

**Category: Original Research**

**Introduction:** Orphans like other children face a number of challenges including limited access to basic health care including oral health care.

**Aim:** To assess and compare the oral health related quality of life among institutionalized orphan and normal school children.

**Methods:** A cross sectional study was carried out among 108 children 8 to 14 years old comprising equal number of institutionalized orphans (study) and normal school children (control). A structured questionnaire OHIP SF-19 was used to assess the oral health, functional, emotional and social well being of children. Data were statistically analyzed using independent t-test.

**Results:** Though the scores of oral health well being didn’t differ significantly between two groups, the other domains differed significantly with orphan children scoring poorly.

**Conclusion:** Children with parents experienced better OHRQOL than orphan children. Effective health promotion strategies need to be implemented to improve the status of these children.