FC165
The Evaluation of Microhardness, Polymerization Shrinkage and the Heat Released During Polymerization of a Posterior Composite Polymerized with Different Techniques and Different Light Devices
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Aim and purpose: The aim of this study was to evaluate the effect of three light curing units on the polymerization shrinkage, microhardness and temperature rise of the bulk fill restorative composite.

Materials and method: In our study, a conventional halogen lamp (QTH, Blue Luxcer) and two light-emitting diodes (HS-LED 1500 and VALO-LED) light units, presented eight different light application mode, were used. 4 mm thin and only light-curing posterior composite (X-tra Fil-Voco) samples were fabricated. Video display method, Vickers surface method and the non-contact temperature measuring methods were used. Data were analyzed by two-way ANOVA and Tukey tests.

Results: Although the highest polymerization shrinkage was found in the standard mode of the 3rd Generation LED unit, the lowest polymerization shrinkage was found in the soft-start mode of the 2nd Generation LED unit. The highest values of surface hardness were found in the soft-start mode of the 2nd Generation LED unit. The lowest values of surface hardness were found in the extra mode of the 3rd Generation LED unit. The ratio between lower and upper surface hardness values were found higher than 80% only for the polymerization performed by the standard and soft-start mode of the 2nd Generation LED unit. Temperature rise was the lowest for the pulse-delay mode of the 2nd generations of LED unit. The temperature rise was the highest for the extra mode of the 3rd Generation LED unit. There were statistically significant differences between those mentioned groups.

Summary and conclusions: Numerous in-vitro studies are needed to suggest an ideal composite resin and light device.

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Role of Sodium Ascorbate in Reversal of Compromised Bonding in Deproteinized Dentin – An In Vitro Study
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Aim and purpose: The purpose of this study was to evaluate the effect of 10% sodium ascorbate application on shear bond strength of two step self-etch adhesive and etch and rinse adhesive to sodium hypochlorite and hydrogen peroxide treated dentin.

Materials and method: For this study 80 human molars were collected and the buccal enamel surfaces were ground with 120-grit abrasive. After exposing superficial dentin, flat dentin surfaces were wore down silicon carbide abrasive paper to produce smear layer on dentin. Teeth were divided into two groups based upon two adhesive systems used, Adper Single Bond 2 and Adper SE Plus. In each group two subgroups were treated with NaOCl and H₂O₂ each and in other two subgroups application of sodium ascorbate was done after treatment with NaOCl and H₂O₂ each, shear bond strength was tested using Universal Testing Machine at a cross head speed of 0.5 mm/min. The fractured surfaces were analyzed by stereomicroscope and data was subjected to statistical analysis.

Results: There was highly significant increase in shear bond strength of Adper Single Bond 2 and Adper SE Plus. The shear bond strength of NaOCl treated dentin subgroups of both adhesive system groups was less but not significantly less than H₂O₂ treated dentin subgroups.

Summary and conclusions: Since vitamin C and its salts are non-toxic and are widely used in the food industry as antioxidants, it is unlikely that their use on dentin will create any adverse biological effect or clinical hazard.

FC167
Silorane Composite Repair: Influence of Surface Treatment and Repairing Material
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Aim and purpose: To evaluate the influence of surface treatment and repairing material (adhesive/composite) on the shear bond strength (SBS) of silorane composite repair.
on probing, generalized deep periodontal pockets of 7 mm and Grade 2 mobility in relation to 26. She was managed with combined medical and periodontal therapy including surgery.

Case 2: A 65 year old female with a history of MS for 10 years complained of pain and pus discharge from lower front teeth since 10 days. She had poor oral hygiene with multiple periodontal abscesses, generalized Grade 2 bleeding on probing, papillary enlargements in maxillary and mandibular anterior region and generalized 6 mm periodontal pockets. As the patient was geriatric with fluctuating systemic profile only palliative periodontal therapy along with replacement of antihypertensive agent was done.

Results: Successful periodontal treatment in both the cases resulted in improvement of HbA1c levels and stable metabolic parameters during follow up for 1 year.

Summary and conclusions: This report highlights the importance of interdisciplinary management of patients with MS. CP is closely associated with MS and often deteriorates the latter. Therefore its prompt management may not only improve existing systemic conditions but may prevent development of more serious cardiac complications.

Poster Session 46 – Room Cubicle 2 | 2015-09-24 | 14:30-15:30

Theme: Dental Treatment & Restorative Dentistry – Periodontics

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Comparative Study of Risk Factors of Periodontal Disease among Urban and Rural Population
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Aim and purpose: To compare participants’ lifestyle related risk factors for periodontal disease between urban & rural population.

Materials and method: A cross-sectional study consisting of a structured questionnaire on health practice index, oral health related behavior & personal habits as well as socio-demographic variables was conducted on 800 subjects aged 20–50 years attending dental outreach centers of Manipal College of Dental Sciences in urban and rural areas of Udupi District. Clinical examination for periodontal status was done by using Community periodontal index, OHI-S index and gingival index. Statistical analysis was done by bivariate analysis using chi-square.

Results: There was a statistically significant difference between the urban and the rural participants, when compared against their occupations, education, income, oral health care behaviors like dental visits, device of cleaning, frequency of cleaning and method of cleaning and personal habits like tobacco chewing, pan chewing (<0.001 respectively), number of hours of work/day (p = 0.02), physical exercise, mental stress levels and overall lifestyles (p < 0.001 respectively). It was also found that more number of the urban participants had better oral hygiene status (p < 0.001), gingival status (p < 0.001) and healthy periodontium (p = 0.002) than the rural counterparts in the present study.

Summary and conclusions: These findings suggest that rural participants had more lifestyle related risk factors for periodontitis as well as less healthy periodontium than the urban participants. Patient’s involvement in self-care by promoting healthy lifestyles is needed especially in rural areas where adequate treatment facilities are lacking.

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Management of Multiple Recession with Coronally Advanced Flap: Case Report
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Gingival recessions associated with cervical abrasions can result in an unesthetic appearance and hypersensitivity. Numerous surgical procedures have been implicated for root coverage. Coronally advanced flap (CAF) as a periodontal plastic surgery aim to restore gingival esthetic and resolve hypersensitivity of teeth by root coverage. A case report is presented dealing with the treatment of Miller Class I multiple recession and cervical abrasion from lateral incisor to second premolar of maxillary left region on a 36-year-old male patient. Combination of CAF procedure with tetracycline solution as root conditioning were conducted to treat the defects. Five month after surgery showed favorable root coverage. The treatment helped to resolve hypersensitivity and achieved satisfaction of the patient’s esthetic.

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Different Modalities in Management of Palato-Radicular Groove: Case Reports
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Palato – radicular groove (PRG) is one of the rare developmental anomalies of maxillary incisor teeth, primarily maxillary lateral incisor. It usually begins in the central fossa, crosses the cingulum and extends to varying distance apically, possibly reaching the root apex. Its clinical relevance comes into picture once there is associated lack of epithelial closure which makes it an important niche for microbes. Pulp involvement could result due to the introduction of bacterial toxins through channels that existed between the root canal system and the groove. Here we report two cases of Mongolian male who presented with the PRG in the maxillary lateral incisors. In the first case, a 25-year-old male presented with deep periodontal pocket, but no evidence of pulpal involvement. This case was managed with scaling and root surface debridement followed with radiculoplasty. The second case, who was a 17 year old male presented with advanced bone loss and pulpal necrosis. Case was managed with root canal treatment followed by surgical periodontal therapy and the groove was sealed with GIC. Both the cases resulted in significant reduction in probing pocket depth and gain in clinical attachment level with decrease in mobility.