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01 Microhardness of a nanofill composite resin light cured by led or qth units with different times

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Adequate polymerization is a crucial factor in obtaining the optimal physical performance of resin composite materials. Nevertheless, there are many factors that can affect the quantity of bright energy what the surface of top and of bottom of a growth of composite resin receives. The aim of this in vitro study was to evaluate the influence of light curing modes and light curing time on microhardness of a hybrid composite resin (Supreme - Color A2E), with a curing tip distance of 8 mm. Forty-five composite resin specimens were randomly prepared and divided into 9 groups (n=5): three polymerization modes (Conventional - 550 mW/cm²; 2nd generation LED - 1600mW/cm²; 3rd generation LED - 800mW/cm²) and three light curing times (20 s; 40 s; 60 s). After 24 hours, Knoop microhardness measurements were obtained on top and bottom surface of the sample, with load of 25 grams for 7 seconds. Four indentations were performed in each surface of each sample. Results showed that conventional and LED polymerization modes presented higher hardness means and were statistically different from high intensity in almost all experimental conditions. There is no statistical difference for the factors polymerization modes and light curing times in both surfaces. For all experimental conditions, top surfaces showed higher hardness than bottom surfaces. It was concluded that increase the light curing time for all light curing unit studied did not improve the hardness of a nanofill composite resin, even light cured 8 mm distant of the tip of the light curing unit.

03 Cytokines: Beyond inflammatory processes

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This presentation describes some knowledge concerning the regulatory proteins known as cytokines, which have very wide range of important physiological functions in the human body. There has been an enormous explosion of knowledge concerning these proteins, and once these cytokines play fundamental roles in the control of many physiological functions in the body and are implicated in a large variety of disease states, this trend shows every likelihood of continuing. Important examples of diseases in which cytokines are undoubtedly involved include many different cancers, autoimmune disorders, virus infections, and inflammatory diseases. It is common for different cell types to secrete the same cytokine or for a single cytokine to act on several different cell types; cytokines are redundant in their activity, meaning similar functions can be stimulated by different cytokines; they are often produced in a cascade, as one cytokine stimulates its target cells to make additional cytokines and they can act synergistically or antagonistically. It is therefore important that we should understand as much as possible about the structure and function of the cytokines their roles in regulating normal processes, and the ways in which their regulatory activities are disrupted in disease.

05 The perception of mothers affected of nipple fissure on the effectiveness of a treatment method proposed

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The objective of this study was to assess the perception of infant about the method developed for the treatment of nipple fissure. The selection of participants was carried out through the criteria of saturation, thus, ten mothers belonging to the Group of encouragement for the Exclusive Breastfeeding (GIAME - Cepae - FOP - Unicamp), affected by nipple fissure were targeted on the implementation of the protocol of treatment and accompanied by the researcher, from the identification of the problem to final the cure. The information was obtained through interviews and participant observation. All conversations between mother and researcher were recorded and transcribed literally. The data were treated by the technique of categorical thematic content analysis. The proposed protocol for the treatment of the nipple fissure shown to be effective in healing of injuries and maintenance of breastfeeding for all participants who have recently given birth.

02 Evaluation of bacterial leakage of implant/abutment interface between different systems. An in vitro study.

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The presence of bacterial leakage in abutment/implant interface is one of the factors responsible for implant failures. The aim of this study was to evaluate in vitro the sealing ability of bacterial leakage in Morse taper and external hexagon abutment/implant interface. Implants (Ø 3,75 mm) of each system were used with their respective abutment: MT – Morse taper/universal abutment (Neodent, n=10) and EH – external hexagon/personalized abutment (Neodent, n=10). Evaluation of bacterial leakage from the outside to the internal part of the implant was tested. Each assembly (abutment/implant) was immersed in Tryptic Soy + Yeast Extract broth containing *Streptococcus sanguinis* (ATCC 10904) and incubated for 72 hours. To test bacterial leakage, sterile paper points were used to collect samples of the internal well of the implant to verify evidence of bacterial presence. All separate components were subsequently examined by SEM to confirm the results found in the microbial experiment. Data were analyzed using Fisher's Exact Test (5%). Evidence of bacteria was found in 29% of both the interfaces tested. No significant difference was observed between the systems tested (p > 0.05). Under these experimental conditions, we may conclude that both systems MT and EH showed efficient bacterial sealing.

04 HOXB7, differentially expressed in normal and squamous cell carcinoma samples, induces proliferation in hacat and scc-9 cell lines

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HOX homeobox genes play an important role in embryogenesis exerting a tight control of cell proliferation, differentiation and cell death. HOX genes are also associated with the development of different kinds of neoplasias such as prostate, ovary, kidney, lung and skin cancers as well as leukemias. The goal of this study was to quantify the expression of HOX homeobox genes in oral samples of normal mucosa and squamous cell carcinoma (SCC) through "duplex" semi-quantitative Polymerase Chain Reaction (PCR) assays. Our results show that several HOX genes are differentially expressed in oral tissues and cell culture samples of normal mucosa and SCC. One of those genes was HOXB7 who was described in breast neoplasias as a mediator of angiogenesis, proliferation and cell survival and epithelial-mesenchymal transition, processes that are crucial in tumor progression. To evaluate the role of HOXB7 in oral carcinogenesis, we used overexpression and neutralization of its expression, with specific clones of the HaCAT normal keratinocyte cell line, overexpressing HOXB7 and the development of a RNA interference system in the squamous cell carcinoma cell line SCC-9. Our results show that HOXB7 induces cell proliferation without altering the rate of cell survival (apoptosis), as revealed by proliferation assays such as BrdU incorporation and Ki-67 expression index. These results suggest that altered expression of the HOXB7 gene may be important for oral carcinogenesis through increase in cell proliferation.

06 Unilateral cross bite in primary teeth treated with jaw functional orthopaedics methodology without device

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The clinical conduct foundation on the jaw functional orthopaedics concepts allow to treat all the malocclusions even in the primary teeth providing the balance of morphological and functional development of the stomatognathic system. This study shows a clinical case of the right unilateral cross bite in primary teeth with right exclusive chewing and jaw upper atrophy treated with jaw functional orthopaedics techniques without device. Male patient, 4 years old; complete primary teeth with early lost of 51; right unilateral cross bite. In one clinical session was performed: selective grinding in left laterality, making this side the new side of chewing and application of the composite, like Planas Direct Tracks, on the 52, 53, 54 vestibular face and on the 54, 55, 64, 65 occlusal face. The patient received at the end of the session immediate masticatory direction (MD) during 15 minutes with chewing gum in the left side (new work side) to offer new information to the sensorial nervous system. The inversion of the chewing side occurs as soon as the clinical intervention was conclude, because during the 15 minutes of chewing the patient tried to change the position of the chewing gum to the right side, but immediately returned to the left one. The patient was accompany periodically during two years and the chewing became gradually alternate bilateral. The successful treatment suggest that the cross bite can be treated early using functional orthopaedics techniques without device.

07 True bifid condyle case report – MRI Images

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The bifid mandibular condyle has been described as a rare condition of unknown etiology. Recently, in order to avoid terminological ambiguity, it was suggested that the term bifid condyle should be used only in cases of multiple condyles in the sagittal plane – two condyles in the anterior-posterior position. We report a case of anterior-posterior bifid condyle diagnosed in a TMJ magnetic resonance exam. A 39 years old female patient was referred to Delfin radiographic unit for a TMJ magnetic resonance, reporting pain and difficulty while opening her mouth. During clinical exam, a lateral projection of the mandible to the left side was observed. After MRI exam, it was verified the presence of two condyles in the anterior-posterior position and two distinct joint cavities in the patient's left TMJ.

09 Resistance of bonding of the mdpb-containing adhesive system on the caries-affected dentin exposed s. Mutans

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To evaluate the effect of fluoride/MDPB-containing adhesive system on the bonding durability to permanent artificial CAD exposed to *S. mutans* and water storages. Twelve third molars were selected. Flat surfaces of dentin were submitted to artificial caries development with *S. mutans* and BHI broth. Caries-infected dentin were removed with burs and caries-affected dentin (CAD) were restored with Adper Scotchbond Multi-Purpose (SBM) and Clearfil Protect Bond (CPB) (n=6). Non-trimmed resin-dentin bonded interfaces (1mm²) were stored in *S. mutans* + BHI for 3 days or in deionized water for 3 months and after subjected to microtensile bond strength (μ TBS). The control group was not submitted to storage, immediate μ TBS was realized. Fractographic analysis was performed after μ TBS test by scanning electron microscopy (SEM). Two-way ANOVA and Tukey's tests were used. Statistical difference was found between μ TBS values of SBM and CPB after storage in water and *S. mutans* solution. However, there was no difference between *S. mutans* storage and control group for CPB. No statistical difference was found between water and *S. mutans* storage, regardless of the adhesive system tested. The fluoride/MDPB-containing adhesive system prevent the degradation of CAD bond strength in *S. mutans* storage.

11 Conditions periodontal infectious and chronic osteomyelitis jaws: Microbiological aspects common

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Several microorganisms and oral conditions have been associated with the development of chronic osteomyelitis jaws. In this study, the occurrence of microbial species in periodontopathogenesis injuries, chronic osteomyelitis of the jaw was evaluated through real-time PCR. Samples of 18 cases were maintained from 1993 to 2008 in liquid nitrogen and had their DNA extracted DNA Mini Kit Qlamp by the growing microbial was also held in agar fastidious anaerobe supplemented with hemine, menadione, yeast extract, and blood of horse, and that the identification and quantification of the main periodontopathogens were also performed by real-time PCR is employing the system TaqMan, primers and probes specific. For culture, 55% of the samples showed microbial contamination, and the periodontopathogens accounted for just over 40% of total isolates, while in real-time PCR, microorganisms were detected in samples of 88.89% and anaerobes were present in periodontal more than 75% of the samples, which represented the predominant group. The data of this study suggest that the main source of this infection in cases of chronic osteomyelitis of the jaw is represented by the subgingival microbiota.

08 Histomorphometrical changes in cortical bone of irradiated rabbits: Pilot study

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Radiation is given as a form of treatment of malignant neoplasia. However, it can cause adverse effects leading to irreversible damage to bone tissue. The aim of this study was to histomorphometrically evaluate changes in cortical bone subjected to radiation. 6 female rabbits were divided into two groups: Control and Test. The test group received a single dose of 15Gy in the tibia being used teletherapy with cobalt-60. After 60 days, animals were sacrificed and from each animal a 1cm tibia fragment was removed. The fragments were fixed in formalin 10%, descalcified with EDTA and processed for inclusion in paraffin. Semi-serialized cuts of 5 μ m stained in HE were obtained and examined with ML. 48 histological scanned images were obtained, and they undergo the process of interactive targeting, resulting in binary images, where the regions occupied by bone matrix became black and bone channels and also areas of resorption, became white. The white areas were considered regions of interest (ROI) and were analyzed by algorithms developed in the SCILAB environment program, resulting in: percentage of bone tissue per area, average area of ROIs and areas of lacunae. There was no statistical difference between groups (p <0.05), despite the lower amount of bone matrix (95.4 <96.0), largest area of channels - ROIs (479 > 424) and greater areas of lacunae (14.1 > 12.6) in the irradiated group. There is suggested that irradiated animals have histomorphometrical changes in bone formation, which may be confirmed with increasing sample.

10 Electromyographic study of the anterior, medial and posterior parts of the temporal muscle in subjects angle class I

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The temporal muscle has been target of several complaints, because of its important function in the stomatognathic system, favoring the mandibular stability. Alterations in its activity can lead to many problems. This study was aimed at investigating the electrical activity default in the anterior (AT), medial (MT) and posterior (PT) parts of the temporal muscle during mastication. Individuals' sample involved fourteen Angle Class I subjects, age 18–31 years, with no temporomandibular dysfunction. The signals electromyographic were registered using an electromyographer and surface electrode. The electrodes were set in both sides and volunteers did three times mastications movements (usual, right, left and bilateral mastication; protrusion; right and left laterality; circundation). The electromyographic values were calculated regarding with Root Means Square (RMS) and submitted to statistic review. The results showed that AT muscle had the biggest activity in the bilateral, usual right and left mastication movement, regarding the laterality, circundation, and protrusion movements. The MT muscle was more active in the bilateral and left movements, while in the PT muscle had more activity during the bilateral mastication. The results were similar in both sides. Therefore, can be concluded that AT, MT and PT had different activities during the mastication movements, which are bigger in usual, bilateral, right and left mastication.

12 Foreign body gingivitis: Histopathology, immunohistochemical, and microanalysis

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Foreign body gingivitis (FBG) is an inflammation associate with the presence of foreign material in the gingival connective tissue, different of periodont diseases, which is caused by microorganism. The condition often persists after conventional periodontal therapy and excellent oral hygiene. We related two cases of FBG, which specime from biopsies showed foci containing particles of foreign material. Immunohistochemical reactions, evaluation for scanning electronic microscopy and microanalysis were performed. The histologic features showed intense diffuse inflammatory reaction in both cases and they were classified like chronic, distributed in lichenoid or in a band-like pattern beneath the basement membrane. Details of the particle could have been seen with clearness by electronic microscopy. Through X-ray energy dispersive analysis we saw that aluminum and silicon were the most common found elements in the foreign body, indicating a origin from prophylaxis pastes, abrasive and polishing agent that proceeding dental polishing. The only treatment is surgical of affected tissue. Therefore the prevention by dentist is the ideal solution to the problem.

13 Influence of the high cariogenic challenge in the selection of strains with atypical expression of glucosyltransferases.

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Studies in experimental models of caries in rats show that *S. sobrinus* strains that were re-isolated from animals exposed to a high cariogenic challenge are more virulent when compared with the ancestral strain. The aim of this study was to investigate whether similar phenomena occur with the *S. mutans* species or not. To this purpose, specific pathogen free rats Wistar were inoculated with *S. mutans* strain SJR833 and exposed or not to high cariogenic challenge (dessalivated and fed diet rich in sucrose) (phase I). Genotypic profiles of the strains isolated at the end of the experiment were compared with the ancestral strain, confirming the same origin. One isolate obtained from one animal with the highest caries score were then compared with its ancestral with respect to sucrose-dependent adherence in vitro, expression of *gtfB*, *gtfC* and *gbpB* genes, and virulence in a second phase of experimental caries in rats (phase II). High variability in caries development was observed within animal groups, indicating the high influence of host factors in the cariogenic process. The strain 7F1E and its derivatives did not expressed *gtfC* and showed low sucrose-dependent adherence in vitro when compared to the ancestral. The results suggest that exposure to stress conditions related to high cariogenic challenge may promote selection of variant strains in the glucosyltransferase locus.

15 “The evaluation of efilm software invert tool in magnetic resonance images for temporomandibular joints.”

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The temporomandibular joint (TMJ) constitutes a complex system of structures strongly associated that with additional components composes the stomatognathic system. The study based on images of the mandibular movement related to the anatomy of the articular disc, fossa and eminence was possible just through resources supplied by magnetic resonance imaging exams and its softwares. In the software e-Film, the “inverting” tool allows pixels with low value (dark) become pixels with high value (clear). However, it is not known if this function brings benefits of diagnosis to the professional. So, this paper evaluated the applicability of the “inverting” tool from eFilm Workstation software. On 30 magnetic resonance images of the articular disc a millimeter grade was overlapped. Five examiners draw on a sheet of millimeter paper the image observed with and without the use of the “inverting” tool. The disc image was quantified by the amount of filled squares. The results were submitted to statistical analysis. Values of the intra-class correlation coefficients showed $r > 0.05$ which has not shown statistically significant difference between groups.

17 International cooperation in research with human beings

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The researches organized abroad or with foreign participation require the establishment of a co-operation relationship, in the ethical way, among the parts mutually interested. This theme presents a wide denomination in the 196/96 resolution called “researches co-ordinated abroad or with foreign participation”. Projects of Multi-centered Researches is the nomination for projects which are conducted according to a single protocol in several research centers; therefore, the research is put into practice by the responsible researcher in each center, according to the same procedure. The multi-centered studies are, undoubtedly, an important research instrument. However, the organizational structure of these studies must be better discussed. It is necessary that the multiple centers work conjunctly, because only the perfect integration guarantees that the several researchers join efforts to the achievement of the established purposes. Without it, the multiple tendencies determine different types of actions and the data legitimacy is endangered.

14 Chemo-mechanical procedure effect in bacterial load reduction and lps from root canal infections

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Lipopolysaccharides (LPS), the cell wall constituent of Gram-negative bacteria, is a potent inflammatory mediator that can elicit inflammatory response and bone resorption in periapical tissues. In order to compare the efficacy of Chemo-mechanical preparation (CMP) with 2.5% Sodium Hypochlorite (NaOCl) and 2% Chlorhexidine gel (CHX-gel) in reducing bacterial load and LPS from infected root canals, 48 root canals from single root teeth, asymptomatic, with pulp necrosis and periapical lesions were selected. A total of 90 samples were recovered from the infected root canals at different samplings times- before (s1) (n=48) and after CMP (s2) (n=48) with 2.5% NaOCl (n=24) and 2% CHX-gel (n=24). Aerobe and Anaerobe techniques were used to bacteria culture. A quantitative chromogenic Limulus amoebocyte lysate assay was used to determine the amount of LPS (QLC-1000). At s1, bacteria (mean: 2.8×10^5 CFU/mL) and LPS (mean: 238.40 EU/mL) were recovered from 100% of the root canals sampled. The CMP with 2.5% NaOCl and 2% CHX-gel were effected in reducing the initial amount of bacteria in 99.78% (mean: 3.6×10^2 CFU/mL) and 99.97% (1.0×10^2 CFU/mL) respectively ($p < 0.05$). At s2, LPS were detected in 100% of the root canals samples. CMP with 2.5% NaOCl and 2% CHX-gel were able to reduce 55.99% (298,41 – 113,75 EU/mL) and 44.40% (151,61 – 84,30 EU/mL) of the total initial amount of LPS found in root canals at s1 ($p < 0.05$). Our findings indicated that CMP with either 2.5% NaOCl or 2% CHX-gel was moderately effective against bacteria but less effective against LPS in root canal infection.

16 Analysis of mmp-3 gene promoter methylation status in smokers and non-smokers subjects with chronic periodontal disease

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Periodontal disease (periodontitis) represent an inflammatory disorder that affect the periodontal tissues (alveolar bone, periodontal ligament and cement), promoting destruction of these tissues. Several works have shown that smoke cigarette is a risk factor for periodontitis and oral cancer, since chemical agents from tobacco increase genetic and epigenetic modifications. DNA methylation in CpG region of gene promoters may trigger modifications in transcription levels. We have investigated the methylation status in MMP-3 gene promoter (-686) in smokers, non-smokers individuals with chronic periodontitis and healthy subjects. The DNA was extracted from gingival tissue and the methylation status of the promoter region of MMP3 was analyzed with methylation – sensitive restriction enzyme (HpaII) followed by polymerase chain reaction amplification and 10 % polyacrylamide electrophoresis. This study shows that there is no statistical difference between the groups $p = 0.64$. We have concluded that may not exist a relation between epigenetic changes of the methylation status of the promoter region of MMP3 (-686) and the periodontal disease.

18 Cementoblastoma: Case report

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A 64 years old male patient seek treatment at the department of oral and maxillofacial surgery complaining of a swelling and suppuration at the right side of the mandible that started 15 days before. This infection was treated with penicillin. At first consultation, this patient presented a mucosal fenestration, near the right mandibular third molar. He presented with a poor oral hygiene. The panoramic radiographic revealed a radiopaque and well delimited mass, circumscribed by a radiotransparent area, measuring about 50 x 30 centimeters, located at the angle and ramus. His past medical history revealed diabetes, hepatic cirrhosis and low platelet counting. The main clinical diagnosis was cementoblastoma. The surgical team decided to perform an excisional biopsy. Perioperative management included subcutaneous insulin and fresh plasma transfusion. The patient underwent surgery to remove the lesion under general anesthesia. The tumor presented a solid consistency, and it was sectioned in several parts. The cortical of the bone over the lesion was fixed using plate and screws fixation. The follow-up was uneventful.

19 Class III with anterior crossbite: Changing in stomatognathic system neurofunctional patterns

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Early intervention in Class III malocclusions is extremely necessary, and the clinical conduct foundation on the Jaw Functional Orthopaedics (JFO) has been shown effective in their treatment. This study shows a female patient, 09 years, Class III with anterior crossbite (AC), and anterior chewing predominantly with protrusive and vertical movements, treated with immediate JFO techniques in one clinic session. The following procedures were performed: 1- a application of the composite, like Planas Direct Tracks, on the 54, 55, 64 and 65 occlusal faces and on the 53 and 63 incisal and vestibular faces. In response there was a 1 mm change of jaw posture to distal correcting the AC. 2- Masticatory direction with chewing gum to be held daily, for 15 minutes in the posterior region with bilateral movements, so aware, to provide new information to the sensorial nervous system thus forming new memories of short-term and posteriorly long-term. Soon after the clinical intervention, the chewing was tested and it was observed that there was a reduction in the amplitude of protrusive movements and an increase in lateral alternate movements. 3- A jaw functional orthopaedics device Bimler C3 to reinforcing the neural stimuli newly installed. This subject suggests that the Class III with AC can be treated with immediate JFO techniques. Thus, similar cases can be treated with the same technique that will provide conditions for the balance in the morphological and functional development of the stomatognathic system.

21 Histoplasmosis in immunocompetent patient: Case report

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Histoplasmosis is a deep fungus infection distributed world-wide and caused by *Histoplasma capsulatum*. In the last years, oral histoplasmosis has taken considerable importance since it occurs with significant frequency in immunosuppressed patients, mainly in those HIV positive, with *Histoplasma capsulatum* as the most frequent opportunistic pathogen of these patients those are living in endemic areas. However, there have also reported some cases of histoplasmosis in immunocompetent patients. This paper reports a case of oral histoplasmosis without systemic commitment in a HIV negative immunocompetent patient, where oral lesions represented the first and only sign of this disease. In this case, the appropriate diagnosis was key in setting up the treatment and to solve the infection.

23 Photoelastic analysis of the stress generated by the resin cement when associated with glass fibre accessories posts

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This study assessed the stress generated by resin cement on the walls of the prepared root with or without insertion of principal and/or accessory pre-fabricated glass fibre posts through photoelastic technique. The specimens were made of photoelastic resin discs with an inner orifice (2 mm and 4 mm height). The specimens were sandblasted with aluminum oxide and coated with an adhesive layer (Scotchbond Multi-purpose), and photoactivated for 20s. The specimens were divided into 5 groups (n=5) according to section of post used: Group 1 (G1) (control) – cement resin BiFix, Group 2 (G2) – 1 principal glass fibre post (Reforpost), Group 3 (G3) – 1 principal and 2 accessory glass fibre posts (Reforpin) Group 4 (G4) – 5 accessories posts. After polymerization the specimens were analysed and the visual representation of stress were measured through the program Imagetool using the isochromatic ring of order 1. The data were converted into MPa through a proper equation and the data submitted to ANOVA and Tukey's test (5%). G1 (3.48 ± 0.23) did not differ from G2 (3.27 ± 0.26), but both differ from G3 (2.82 ± 0.14) and G4 (2.80 ± 0.18), which did not differ among each other. The inclusion of accessories posts can contribute to reducing the contraction stress on the walls of the root canals.

20 The importance of interdisciplinary therapy on the esthetic dentistry - a case report

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Since the esthetic is of great concern on the dentistry treatment, it should promote, besides functional rehabilitation, adequate esthetic to the patients, improving your psychosocial comfort. Then, it is necessary an interdisciplinary management that promote a multidisciplinary treatment planning able to associate all requisites to obtain successful final result. The aim of this case report was demonstrate how a combined clinical approach among the dentistry areas can promote a successful treatment. By mean of multidisciplinary management that propose esthetic, the present case report describe a execution of crown lengthening by orthodontic extrusion with fibertomy and emphasize the importance of the an adequate restorative planning to obtain a satisfactory final outcome. The present case report showed that the crown lengthening by orthodontic extrusion with fibertomy promoted adequate esthetic to the patient and contributed to successful functional rehabilitation.

22 Cleaning capability in root walls and organic substance dissolution with apple vinegar and 2.5% naocl associated with 17% edta.

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This "in vitro" study compared the cleaning capability of apple vinegar and 2.5% sodium hypochlorite associated with 17% EDTA in root canal walls. It was selected and instrumented 10 human roots by Master Manual Technique using different irrigating solutions according to the groups selected (group 1- apple vinegar and group 2- 2.5% sodium hypochlorite and 17% EDTA). Roots were split and prepared for SEM analyzes in order to observe smear layer removal. Images were obtained from each third and scores were established for statistical analyzes. The evaluation of organic substance dissolution using 20 bovine organic muscle samples immersed in apple vinegar (group A) and 2.5% sodium hypochlorite (group B). Data such as time between tissue immersion and its complete dissolution were analyzed and compared. It was observed a better cleaning capability in group 2. The dissolution time for 2.5% sodium hypochlorite was between 31 and 55 minutes. Apple vinegar could not dissolve muscle tissue after 48 hours. Despite a partial capability of apple vinegar to remove "smear layer", its cleaning ability was inferior compared to 2.5% NaOCl with EDTA. Apple vinegar has no capacity to dissolve organic substance.

24 Studies on the effects of raloxifene and estrogen on plasmatic concentration of ca2+, p and alp activity in senile rats.

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The estrogen deficiency is important pathogenic factor in the loss of bone tissue associated with the menopause, furthermore the treatment with hormonal replacement results in increase of the mineral density of the bone. The objective of this study was to evaluate the calcium (Ca²⁺), phosphorus (P) and alkaline phosphatase (ALP) concentrations in plasma of intact and ovariectomized (OVX) senile rats treated or not with hormonal therapy. It was used intact rats with 20 months and ovariectomized animals 1 year-old. During 60 days, OVX rats received pellets containing estrogen (400 mg of 17 β -estradiol) or received, for gavage, raloxifene (1mg/Kg/d). The intact senile rats constituted control group. After the experimental period, the concentrations of Ca²⁺ (mg dL⁻¹) and P (mg dL⁻¹) in plasma were measured with a commercially available spectrophotometrical kits (Labtest, Brazil). ALP activity (U/L) was determined by Roy method modified by Labtest. Statistical analyses were determined by ANOVA and Tukey's multiple comparisons test. In experimental groups our results showed increased concentration of plasmatic Ca²⁺ compared to control group. After treatment with estrogen or raloxifene, the Ca²⁺ and P plasmatic concentrations increased and the ALP activity decreased. Plasmatic concentration of P in control group was lower but ALP activity was higher in this group. Our results suggested an estrogen control in plasmatic concentration of Ca, P and ALP in the senile rats.

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The aim of this study was to evaluate upper lips changes due to incisors retraction in Class II Division 1 patients males and females treated with mandibular protraction and fixed appliances, without extractions. The sample consisted of 28 lateral pre and post-treatment lateral X-rays of fourteen 9-12-year old patients, 7 men and 7 women. They presented ANB>4° and an overjet > 4mm, and they were treated by Balter's Bionator and fixed appliances. The average period between initial and final radiographies was of 5 years (maximum of 5.5 years and minimum of 4.5 years). The results showed that the age and sex of the individuals affects changes ratios between upper lips and upper incisors. Men had some lip thickening that masked the retraction effect, resulting in a poor correlation between the incisors movement and the soft tissue (Ls), considering both the cervical point ($r=0.40$) and the incisal point ($r=0.42$). Women showed a strong correlation between the upper incisor retraction movement and the covering soft tissue (incisor cervical point $r=0.86$, incisal point $r=0.74$). The average Ls retraction was 0.55mm with 2.43mm of incisal point movement, and 0.34mm of cervical point. The nasolabial angle showed an average increase of 2° for men and 3.9° for women.

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This study evaluated the influence of the curing modes (light cure and self cure) and viscosities (low and high) on the microtensile bond strength (μ TBS) to dentin of 2 dual resin cements: Variolink II (Ivoclar-Vivadent) (V) e Nexus 2 (Kerr) (N). Occlusal dentin surfaces of ninety six human third molars were flattened with SiC 600 sand paper, until dentin exposure. Teeth were randomly assigned into 8 groups ($n=7$). Resin cements were applied to pre-cured resin composite discs (Sinfony/3M ESPE) (2,0 mm/thick), which were fixed to dentin surfaces, simulating an indirect restorations. The restored teeth were light-activated according to the manufacturers' instructions (XL3000/3M ESPE) or allowed to self-cure. After 24 hs, the teeth were then both mesial-distally and buccal-lingually sectioned to obtain bonded beams specimens (1,0 mm²). Each specimen was tested in tension at a crosshead speed of 0.5 mm/min (4411/Instron). Data (MPa) was analyzed by 2-way ANOVA and Tukey's post-hoc test (5%). No significant differences were noted between resin cement and viscosity, but they were significant for curing mode. In conclusion the light activation increased the μ TBS for the low viscosity resin cements for both dual resin cement used in this study. Supported by FAPESP 06/58813-3 e Capes

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The aim of this study was to evaluate the treatment of gingival recession associated with non-carious cervical lesions using connective tissue graft alone (CTG) or in conjunction with a resin-modified glass ionomer restoration (CTG+R). 22 patients with buccal gingival recessions associated with non-carious cervical lesions in maxillary canines and premolars were selected. The recessions were randomly assigned to receive either the CTG or the CTG+R. Bleeding on probing (BP), probing depth (PD), clinical attachment level (CAL), relative gingival recession (RGR), cervical lesion height (CLH) and dentin sensitivity (DS) were measured at baseline, 45 days, 3 months and 6 months postoperatively. The percentages of CLH coverage for CTG+R and CTG were 74.0% \pm 22.90% and 79.2 \pm 19,11% ($p>0.05$) respectively. No significant difference was observed ($p>0.05$) when root coverage was compared 83.34 \pm 16.32% for CTG+R and 89.16 \pm 12.86% for CTG. Both groups showed statistically significant gain in clinical attachment level root coverage. The CTG+R group showed statistically significant reduction in DS compared to CAF group ($p=0.02$). There were no significant differences between the two groups in BP, PD, RGR and CAL. It can be concluded that the presence of a glass ionomer restoration on the cervical area does not negatively interfere with the amount of coverage achieved by CTG for the treatment of gingival recession associated with non-carious cervical lesions. The combined procedure (CTG+R) may significantly reduce dentin sensitivity when compared to CTG

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The nevoid basal cell carcinoma syndrome, or Gorlin-Goltz syndrome, is an autosomal dominant disease of high penetrance and variable expressivity, caused by mutations of the tumor suppressor gene PTCH. The incidence is low, affecting one in each 56.000 persons. It presents cutaneous nevi, basal cell carcinoma, ribs anomalies, kyphoscoliosis, ocular hypertelorism, frontal bossing, syndactyly, cerebral and meningeal calcification, palmar-plantar pits and multiple keratocystic odontogenic tumors (KOT). The KOT is present in 75% of the cases, occurring generally in the first or second decade of life, being frequently the first sign of the syndrome, earlier originated in syndromic than in non-syndromic patients. We report a case of a 16 years old hispanic male patient that was referred for evaluation of large radiolucent images in the mandibular rami. Discreet ocular hypertelorism, frontal bossing, and vestibulum enlargement in the area corresponding to the left lesion was observed. Radiographic examination showed calcification of the falx cerebri and rib enlargement. The mandibular lesions received marsupialization together with the incisional biopsy, which established the diagnosis of KOT. After six and eight months, both lesions were treated by curettage and complementary treatment consisted of peripheral osteotomy and Carnoy solution. During the post-operative follow-up of six months, recurrent or new lesions were not observed.

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The goal of this in vitro study was to assess the coronal microleakage in endodontic treated teeth filled by different systems (Guta-percha+Endomethasone or Resilon+Epiphany) and using different protocols to dry the root canals before the obturation. Forty single-rooted human mandibular premolars were used. The length of all specimens was standardized in 14 mm. The root canals were instrumented by the Step-back technique and separated in four groups ($n=10$) depending on the filling system used and, the method used to dry the canals. Twenty teeth were dried conventionally with absorbent paper points and filled by the lateral condensation technique with Guta-percha+Endomethasone (Group 1) or with Resilon+Epiphany (Group 2). The remaining 20 teeth were irrigated with absolute alcohol before to the drying with absorbent paper points and filled using the same techniques (Group 3 - Guta-percha+Endomethasone and, Group 4 - Resilon+Epiphany). After the sealers' complete set, the fluid filtration method was used to evaluate quantitatively the coronal microleakage. The measurements for each specimen were carried out in triplicate. The data were statistically analyzed using the ANOVA and Tukey tests. The mean fluid filtration (μ l/min + standard deviation) for each group was: Group 1= 0.038 + 0.013; Group 2= 0.080 + 0.023; Group 3= 0.019 + 0.007; Group 4= 0.058 + 0.012. The teeth filled with Guta-percha+Endomethasone (Groups 1 and 3) obtained better coronal sealing than those filled using Resilon+Epiphany (Groups 2 and 4) ($p<0.05$). Regarding the dry protocols, the use of absolute alcohol reduced significantly ($p<0.05$) the coronal microleakage in the specimens filled with Resilon+Epiphany (1 group 4).

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Chronic periodontitis is an inflammatory disorder that affects the tissues that support the tooth, often culminating in tooth loss. The presence of the DNA methylation in regions of gene promoters rich in CpG islands can promote lifting or removal the levels of transcription and may even completely silence the gene. It has been shown that smoking causes increase in the synthesis of some inflammatory cytokines, including the chemokine interleukin-8 (IL- 8). The objective of this study was to analyze the pattern of DNA methylation in the promoter region of IL- 8 gene in gingival tissue from healthy subjects and with chronic periodontitis to associate the pattern of methylation in these cells with inflammation. DNA of healthy subjects and patients with chronic periodontitis smokers and nonsmokers was purified and then modified by sodium bisulphite, followed by Methylation Specific PCR. Samples of PCR were visualized by electrophoresis on 10% polyacrylamide gels and stain by SYBR Gold. The statistical analysis was performed using the test of X2 and variance test of Friedman with significance level of 5%. The results indicate that individuals with chronic periodontitis independent of smoking have a higher rate of hipomethylation of IL- 8 gene than those controls. Our results suggest that inflammation in gingival tissue can promote changes in the DNA methylation pattern of IL- 8 gene in buccal cells.

31 Inhibitory activity of punica granatum (pomegranate) leaves and fruits extracts on candida spp strains

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The increasing number of immunocompromised patients and extended use of antimicrobial drugs have promoted an increase in the occurrence of opportunistic fungal infections. *Candida albicans* is the most common species isolated from patients with oral candidiasis, but non-*albicans* species have been also isolated from severe infections. Thus, studies are needed to identify new antimicrobial agents to control *Candida* spp. The objective of this research was to evaluate the fungicidal and fungistatic activity of dichloromethane, ethanol and aqueous extracts of the plant *Punica granatum* (pomegranate). The extracts of leaves, frozen fruits and new fruits of *P. granatum* were prepared with dichloromethane, ethanol and aqueous solvents and tested through the microdilution method in standard strains of *C. albicans*, *C. dubliniensis*, *C. tropicalis* and *C. krusei*. The samples were later cultured on Sabouraud Dextrose agar and tested for its fungicidal or fungistatic effect. The data obtained showed that fruits extracts presented greater fungistatic activity than leaves extracts. The crude extracts of the *Punica granatum* fruits showed activity against all species of *Candida* highlighting the need of further studies to isolate the active compounds and their effect on yeasts.

33 Identification of risk indicators for different stages of early childhood caries

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The aim of this study was to identify risk indicators that may influence early childhood caries stages, considering the microbiological composition and presence of dental biofilm, dietary/social factors and oral hygiene habits. One hundred and sixty nine children were divided into 3 groups: caries-free, early caries lesions and cavitated caries lesions. Dental examinations were conducted using World Health Organization criteria + early caries lesions, followed by the collection of supragingival biofilm for microbiological analysis. Before these procedures, the presence of clinically visible dental biofilm on maxillary incisors was recorded. Toothbrushing frequency and meals containing sugar were assessed by questionnaire and diet chart, respectively. The data were analyzed by χ^2 test ($p < 0.05$), followed by multiple logistic regressions, expressed by odds ratios (OR) with a confidence interval (CI) of 95%. Whereas the significant indicators for early caries lesions were high levels of mutans streptococci (OR=2.3, CI=1.01-5.14), high total sugar exposure (OR=5.4, CI=1.42-20.88) and the presence of dental biofilm (OR=2.6, CI=1.07-6.27), the significant indicators for cavitated caries lesions were high total microorganism count (OR=4.6, CI=1.56-13.74) and the presence of lactobacilli (OR=20.31, CI=4.03-102.51). In conclusion, mutans streptococci count, total sugar exposure and the presence of a dental biofilm may be important risk indicators for early caries lesions development, while total microorganism count and the presence of lactobacilli may be important indicators for cavitated caries lesions.

35 Tensile strength of autopolymerizing denture reline resins with microwave postpolymerization treatment

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The aim of this study was to evaluate the effect of microwave postpolymerization on the tensile strength of an acrylic resin (QC-20®) and two autopolymerizing reline resins (Kooliner and New Truliner). 40 specimens were prepared according to the manufacturer's instructions and divided into 4 groups (n=10): G1 specimens united with Kooliner without the effect of postpolymerization in microwave oven using power of 650W/5min (PP), G2 specimens united with New Truliner, without PP, G3 specimens united with Kooliner, with PP, G4 specimens united with New Truliner, with PP. The specimens were prepared using metallic matrixes investing in a flask, and models were impressed in a silicone filled up with acrylic resin (40x10x10mm). After the polymerization, the specimens in acrylic resin (40x10x10mm) were units two on two with the autopolymerizing reline resin (3mm), and stored in water at 37°C for a week. The tensile test was done in universal testing machine EMIC DL-500 MF (5mm/min). The obtained data was analyzed by ANOVA and Tukey test (5%). The postpolymerization didn't have influence on the tensile strength of none materials tested. The material Kooliner had values significant majors of tensile strength with PP and without, when compared with New Truliner.

32 Evaluate of the dimensional stability of condensation silicones using two casting techniques

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This study evaluates the dimensional stability of two condensation silicones: Zetaplus putty/Oranwash light L (ZO) (Zhermack) and Clonage putty/Clonage light (CC) (DFL), being used the casting techniques of double impression (DI) and rebase (RE). The castings were accomplished in a metallic model of dental arch (pattern) in temperature and humidity controlled, following the manufacturers' instructions. The molds were pouring after 30 minutes of the elastic recovery, using dental stone (n=5). The distances among the teeth 33-43, 33-37, 43-47 and 37-47 were measured in the metallic model, through of the measuring microscope (Olympus STM, Japan) and later compared with the distances obtained in the specimens. The data obtained were submitted to the Analysis of Variance and test of Tukey ($p < 0.05$). To the distance between the teeth 33-37, did ZO present contraction significantly smaller than CC for the RE technique (0,16774 ± 0,27690 and 0,58408 ± 0,32681, respectively), and for the DI technique (0,18564 ± 0,14751 and 0,58724 ± 0,19789, respectively). To the other distances among teeth (33-43, 43-47 and 37-47), there wasn't significant difference between the materials and casting techniques. Zetaplus/Oranwash L presented larger dimensional stability than Clonage for both casting techniques. There wasn't difference between the casting techniques of double impression and rebase.

34 Extraction of third molars: Profile of patients attended in graduation and specialization surgery clinics of dentistry school of UFU

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Third molars are the teeth with the highest incidence of impaction and its surgical removal is one of the most performed procedures among Buco-Maxillo-Facial professionals. The objective of this study was to evaluate the profile of patients attended in surgery clinics of FOUFU, the characteristics of third molars, methods used for their extraction and search possible correlations between them. We analyzed records from 290 patients attended in Integrated Clinic of graduation and in Surgery and Traumatology Buco-Maxillo-Facial course of FOUFU, between June and December 2006. Were collected data relating to gender, age, origin, source of referral, radiographic examination, state of impaction, root formation, available space, position of the long axis, deep bone and relations with the maxillary sinus and jaw channel. The average age of patients was 25 years and 3 months. The periapical radiography was more used in graduate and the overview in expertise. The class II was the most found for the third lower molars, being position A the most frequent in graduation and B in the specialization. In the upper teeth, position B was most found in graduation and C in specialization. Were held an average of 1.37 extractions by procedure, in 1 hour and 10 minutes, in graduation, while in expertise were 2.11 extractions per procedure, in 59 minutes.

36 Evaluation of the activity of amazonian plant extracts against enterococcus faecalis in two antibacterial models

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The antibacterial substances used in the endodontical treatment are important in the control of the endopathogens responsible for the chronic periapical lesions and for endodontical retreatments. *Enterococcus faecalis* (Efae) belongs to the group of bacteria composing the endodontical flora. Previous works from UNIP group identified 17 active plant extracts in the microdilution assay (MDA). Based on that finding, on the high levels of bacterial resistance, on the clinical importance of Efae and on the possibility of identifying a new natural product antibiotics from the Amazonia Rain Forest, the 17 selected extracts were tested at a concentration of 200 mg/mL, and in bacterial suspensions of 1 x 10², 1 x 10⁴ e 1 x 10⁶ UFC/mL. Besides this experiment, the same extracts were evaluated in the disk diffusion test (DD) in Mueller Hinton Agar. In this last model, only 10 µL of each extract were applied to the disks, from the concentration of 200 mg/mL. Results for the MDA test showed that extracts 1259, 841, 55, 321, 1257, 352, 429 and 973 were more active. On the other hand, from the DD test, the extracts 352, 321, 1257, 55, 1298, 1247 and 841 showed activity. Five extracts showed activity in both tests, and were selected to further studies, aiming the establishment of parameters such as the minimal inhibitory concentration and minimal bactericidal concentration.

37 Push-out bond strength of accessory glass fiber post bonded to intra-radicular dentin with different adhesive systems

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Fiber glass post can be indicated with advantages to cast post and core in many clinical situations. In flared canal, fiber glass post associated to accessory posts can promote a favorable dissipation of stress, presenting a thinner layer of resin cement. The aim of this study was to evaluate the adhesive resistance of fiber glass post to the intra-radicular dentin using different adhesive systems. One hundred bovine incisors were divided in 10 groups. In groups 1 and 2 were indicated Rely X ARC with and without adhesive system, in group 3 Rely X Unicore and in groups 4 and 5 C&B luting cement with and without adhesive system, associated to one glass fiber post. The same systems were indicated to group 6 to 10, adding three accessory glass fiber posts. The samples were submitted to a push-out test. Kruskal-Wallis test revealed a statistically significant difference ($P < 0,05$) among groups with accessory posts, where group 3 (106,71N) and 8 (160,91 N) showed the highest resistance. Group 2 showed the lowest adhesive resistance (33,95 N). It can be concluded that the final adhesive resistance can be influenced by the adhesive system, which can be improved with the indication of accessory glass fiber posts.

39 The relationship between impacted mandibular third molar and mandibular angle fractures

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The aim of the present work is to consider the relationship between impacted mandibular third molars and the possibility of mandibular fracture, and also to discuss the causes of fracture and the treatment of impacted tooth associated to mandibular fracture and show three cases of mandibular angle fracture associated to third molar surgical removal. An impacted tooth can be defined as one which was unable to erupt due to its own bad positioning, bad positioning of adjacent teeth, or even lack of space for eruption. Dental retention has been associated to local disturbances as cavities, resorption of adjacent tooth, sensitive alterations, infections, cysts and tumors originated from the pericorony follicle, and to the increased risk of mandibular angle fracture. Extraction is the major treatment for impacted teeth, especially when they are related to pathologies. However, extraction indication may not be a simple decision when they are non-symptomatic and considering the risks of the surgical procedure as pain, edema, trism, infections and damage to lingual and alveolar nerves. The major incidence of retained teeth is on mandibular third molars, being their extraction the most common surgical procedure in oral surgery. For Fusilier (2002) these teeth can be related to iatrogenic fractures of mandibular angle, once their positioning in dental arch are very important, as well as the patient age and the side the tooth is presented. We concluded that exist a higher risk of mandibular fracture when the third molars are present.

41 Co2 laser and bonding materials reduce enamel demineralization around orthodontic brackets

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The purpose this study was to determine whether a CO2 laser in association with fluoride released from a bonding material could reduce enamel demineralization around orthodontic brackets subjected to cariogenic challenge. So twenty four bovine enamel slabs were randomly divided into four groups in triplicate: non-fluoride releasing Transbond composite resin (T – Control group), resin-modified Fuji glass ionomer cement (F), CO2 laser + Transbond (TL), and CO2 laser + Fuji (FL). Slabs were submitted to a 5-day microbiological caries model. The Streptococcus mutans biofilm that formed on the slabs was biochemically and microbiologically analyzed, and the enamel Knoop hardness number (KHN) around the brackets was determined. The data were analyzed by ANOVA and Tukey tests ($p < 0,05$). Biochemical and microbiological analyses revealed no statistically significant differences among the groups. Groups T, F, TL and FL showed KHN means (\pm SD) of 195.5(\pm 87.3)c, 209.8(\pm 75.0)bc, 218.2(\pm 113.6)ab and 229.1(\pm 82.7)a, respectively. The use of a CO2 laser (λ 955= \pm 10.6 μ m; 10.0 J/cm²) with or without F-bonding materials was effective for inhibition of demineralization around orthodontic brackets subjected to a cariogenic challenge. However, there was no evidence to suggest an additional effect when the enamel was treated with the combination of CO2 laser and F-releasing material.

38 Incorporation of the dentist in the strategy of family's health through contests: Advance or retrocession for us?

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The Ministerial Entrance number 1.444 inserted professionals of mouth health in the Family Health's Strategy (FHS) and for supply these positions, city halls in general has hired public contests promoters agencies. Few debates have been made about the real contribution of those contests in the selection of more appropriate professionals which will work inside to FHS. The present work aimed to classify the kinds of questions utilized in the tests of contests for selection of professional candidates to the dentist surgeon position (DS) in the FHS, observing the topics approached in 16 contests carried out in the state of São Paulo between the years of 2004 and 2008. It established itself that just 22% of the tests evaluated they presented questions related to the doctrinaire principles and to the trial of work inside to FHS, privileging, therefore, a lot more the selection of formed professionals inside a techniques knowledge logic surgical- restorative than those formed inside the paradigm of the promotion of health, which be necessary to the inversion of the care model been focalized to the practical. So, the elaborate tests by such agencies and you accept of acritical form by agents in the selection of the DS can be privileged the selection of candidates with bigger knowledge of techniques, discriminating against those that make an effort for know the operation of the FHS in the logical one of the principles of the Unique System of Health and that are able to, of fact, contribute for the effectiveness and resolubility of the service offered. It is concluded that the criteria of selection for candidates to the positions of the Family Health's Program (FHP) available in the State of São Paulo are going to be reappraised and reformulate.

40 Evaluation of the muscle sensitivity in adolescents with clinical signs and symptoms of TMD.

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The objective was to evaluate palpation sensitivity of the trapezius and esternocleidomastoideo muscles and its association with the sensitivity of the masseter and temporal in adolescents with clinical signs and symptoms of TMD, by Craniomandibular Index (CMI). Were examined 211 individuals, 12 to 18 years old by 2 examiners (Kappa = 0.94) and 105 showed clinical signs and symptoms of TMD (44 males, average age of 13.16 \pm 1.52 years and 61 females, average age of 13.30 \pm 1.37 years). The criterion for exclusion was considered the presence of systemic diseases and orthodontic treatment prior or current. The CMI values were 0123 \pm 0093 for boys and 0143 \pm 0103 for girls, with no difference between genders (t test $> 0,05$). The percentages of individuals with muscular sensitivity were: 25% temporal, masseter 33%, esternocleidomastoideo 11% and trapezius 18%, with no differences between genders (χ^2 -square, $p > 0,05$). The CMI values showed that the signs and symptoms of TMD were low because of the randomness of the sample. The multiple logistic regression analysis ($p < 0,001$) showed that individuals with sensitivity in masseter and temporal muscles had greater chance of sensitivity in esternocleidomastoideo (odds ratio = 4.25). The girls had a greater chance of pain in the masseter and temporal than boys (odds ratio 2.41), while for the other muscles the chance of pain were the same. According to the results, in the assessment of TMD, the esternocleidomastoideo muscle should be included, especially when they detect sensitivity in masseter muscles.

42 Use of intraradicular filling posts on comprised endodontic treated teeth

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The loss of dentary structure due to carious lesion, fracture or as endodontic treatment result could weaken the reminiscence walls, difficulty these teeth restoration. Although pre-fabricated post was introduced by Bataban in 1970, the literature showed that only after 1987 a filling technique was used, when a composite resin was inserted around a metallic post to strengthen the root walls. Lui (1994) using a translucent post try to increase the resin polymerization inside the root. Marchi et al. (2003) showed that metallic posts together with filling materials did not avoid fractures on weakened roots. Kiskken et al. (2004) verified that as larger the dentine loss inside the root as higher the chance of a catastrophic failure. To a better distribution of stress inside the weakened roots, Bonfante et al. (2007) suggested the use of pre-fabricated glass-fibre accessory posts according their research, which a reduction of 30% of catastrophic failure was found. Their study corroborating with Moosavi et al (2008) and Martelli et al. (2008), which concluded that the use of an accessory post can lead to a better fracture pattern in weakened roots. According to the literature, the use of pre-fabricated accessory posts could be adequated to restore weakened roots.

43 Initial approach as to the polytraumatized patient: The necessity for multidisciplinary intervention

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The trauma in the face is a reality of emergency services, mainly due to the increase of automobile accidents, which usually causes systemic lesions concomitant with lesions on the face of patients. Therefore, the presence of team multidisciplinary in the initial care is of fundamental importance because of the impact of injuries on various organ systems, to aim to reduce the morbidity and mortality. The treatment of severe victims of the trauma requires rapid assessment of injuries and establishment of therapeutic measures to ensure the patient's life, leading him to a state of homeostasis, normotension and normal volemia. Our objectives are to emphasize the importance of multidisciplinary care, particularly in this type of patient in the first service and report the case of a patient, 29 years old, victim of a motorcycle accident presenting extensive lacerations in the face, and fractures in the middle third and total disarticulation of the zygomatic bone, jaw, and dental avulsions. He was diagnosed with fracture of the type Le Fort III of the left, Le Fort II of the right, front of fracture, fracture of the nose bones themselves, as well as bilateral collarbone fracture and the necessity for enucleation of the eyeball. We conclude that the multidisciplinary care to polytraumatized, offers the patient a greater survival, with conditions so that it can withstand the consequences inherent in the type of trauma suffered, as well as prevent it from sequelae of a greater magnitude.

45 Ca binding in an artificial biofilm formed in the presence of sucrose

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Sucrose is considered the most cariogenic carbohydrate, since it can be fermented to acids and is also a substrate for the synthesis of extracellular polysaccharides (EPS) in dental biofilm. EPS could decrease bacterial density due to the volume occupied in the biofilm, resulting in a reduced number of biofilm calcium (Ca) binding sites. Ca is important to reduce dental demineralization during a cariogenic challenge. Thus, the aim of this study was to evaluate the Ca binding in test biofilms formed in the presence of sucrose or its constituents monosaccharides glucose and fructose. *Streptococcus mutans* Ingbritt 1600 were grown in THB containing 1% sucrose or 0.5% glucose + 0.5% fructose for 18h at 37°C. The resulting pellet was washed in potassium bicarbonate buffer, pH 7, in order to obtain the test biofilm. The number of colony forming units (CFU) per mg of test biofilm was determined using blood agar. Ca was extracted from the test biofilms using 0.5 M HCl. The number of CFU/mg was $4.7 \pm 1.3 \times 10^8$ in test biofilm grown with glucose+fructose and $2.7 \pm 0.3 \times 10^8$ in the biofilm grown with sucrose, a 1.7 higher value for the former. Ca concentration in the test biofilm followed the same trend, being of $1.3 \pm 0.2 \times 10^{-5}$ mol/g in that grown under glucose+fructose, and of $0.5 \pm 0.03 \times 10^{-5}$ mol/g in that grown under sucrose. The results suggest that sucrose can negatively affect the biofilm formed by decreasing bacterial density and consequently reducing the number of binding sites available for Ca.

47 Computerized tomography study of the mandibular depression: Report of two cases

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The authors present radiographic aspects of mandibular depression, through beam computed tomography. This disorder of development is known in the literature as the synonyms of Stafne's pseudocyst and Stafne's bone defect, among others. This bone defect occurs by anatomical variation for the development of the submandibular gland causing a depression in the cortical of the jaw that reduces in a panoramic or periapical radiographs its cystic appearance. As a differential classic diagnosis has its location below the mandibular canal. Two cases are presented, where an individual has 3 defects and the other just one. Using up the computerized beam-tapered tomography Newtom 3G and software NNT (QR, Verona, Italy) with the panoramic images, and reconstruction three-dimensional (3D) was observed making possible detailing of these depressions and relationship with the path of mandibular canal.

44 Influence of different photoactivation method on hardness and increase of temperature of composites

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The objective of this study was to evaluate the influence of conventional halogen light (QTH) and xenon plasma arc curing (PAC) light curing with standardized light energy density. The composites Filtek Z250 and Esthet X were used in the shade A3. The temperature increase was registered with Type-k thermocouple connected to a digital thermometer (Iopetherm 46). A self-cured polymerized acrylic resin base was built in order to guide the thermocouple and to support the dentin disk of 1.5mm thickness obtained from bovine tooth. On the acrylic resin base, elastomer mold of 2.0mm were adapted. The temperature increase was measured after composite light curing. After 24 hours of photo activation, the specimens were submitted to Knoop hardness test (HMV-2000, Shimadzu). Data were submitted to ANOVA and Tukey's test ($p < 0.05$). For both composites, there were no significant differences ($p > 0.05$) in the top surface hardness; however, PAC promoted statistically lower ($p < 0.05$) Knoop hardness values in the bottom. The mean temperature increase showed no significant statistical differences ($p > 0.05$). The standardization of the energy density showed no influence on the temperature increase of the composite, however, showed significant effect on hardness values.

46 Effect of the light curing unit, resin matrix and photoinitiator in the physical properties of experimental composites

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The study analyzed the effect of the light curing unit, resin matrix and photoinitiator in the physical properties of experimental composites. Composites containing a blend of BisGMA, TEGDMA (BT) or BisGMA, BisEMA, UDMA, TEGDMA (BBUT) and 65wt% of silanated filler particles were prepared with the use of the photoinitiators CQ (Camphoroquinone) and PPD (1-Phenyl-1,2-Propanodione). The light curing units used were one of halogen lamp - QTH (XL2500-3M/ESPE) and a LED (UltraBlueIS-DMC). A power meter and a spectrometer (USB 2000) were used to show the total irradiance and the emitted in certain wavelengths. The curve of absorption of the photoinitiators was checked by a spectrometer (Varian Cary 5G). Tests to the compression strength (CS), diametrical compression strength (DCS) and diametrical module (DM) were accomplished in a universal machine (DL500 - EMIC). Analyses of hardness Knoop in the top (HT) and in the bottom (HB) of the samples were accomplished in microdurometer (Shimadzu). The data were submitted to the ANOVA and the Tukey's test (5%). In agreement with the results of CS (MPa), was verified that BT-CQ (341) produced larger values than BT-PPD (298) and inverse results when BBUT was compared (293-337). PPD produced the largest averages for DCS (51) and BT for DM (370). CQ produced larger values of HT (31,5) and HB (19,6) in KHN, that PPD (24,5-17) when the resin matrix BT was used instead of BBUT. The system photoinitiator and the resin matrix can interfere in the properties of the resin composites.

48 Esthetic of smile: Periodontal characteristic of dentistry interest. Case report.

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In the last decade, the esthetic necessity stimulated Dentistry to develop new materials and technological to attend patient's expectative. Periodontics passes by this process and implements fundamental criteria of dentogingival esthetic. The dentist should evaluate various factors that affect esthetic results during patient treatment. This study presents a case report that involves and discusses how esthetic characteristics of periodontal interest like: smile line, teeth crown lengthening and gingival margin position could affect treatment esthetical results. Patient SM. 17 years old, relates no systemic compromised, but was dissatisfaction with incisor crown length differences. After clinical and radiographic examination, was diagnosed that alterations were related with gingival position around the teeth. The treatment based on gingivectomy technique. After 06 months, the patient was happiness with the treatment results. In conclusion, the evaluation of esthetic-periodontal characteristic and etiological of gingival smile are fundamental to reach esthetical satisfactory treatment for patients.

49 Microbiological assay to evaluate the antibacterial activity of mouth rinse against streptococcus mutans and streptococcus sanguis

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The incorporation of antiseptic substances into oral hygiene formulations aiming the control of biofilm formation, is given based on the microorganism quantity and on the prevalence of periodontal disease and cavity. Both *Streptococcus mutans* (Smut) e *Streptococcus sanguis* (Ssang), that belong to the normal oral flora, play an important role in the biofilm formation, as well as in the establishment of cavity. For that reason, the present work aimed the antimicrobial evaluation of 11 mouth rinse available in the market and of chlorhexidine 2 and 0,12 %, standard substances, against both bacteria. The disk diffusion method in agar blood, incubation at 37 °C for 48 h were adopted. Results show that seven out of 11 mouth rinse showed antibacterial activity, observed through the area of bacterial growth inhibition it was observed that, in relation to the controls, the mouth rinse Perio Therapy showed the best activity against Smut and the one containing propolis and pomegranate extract showed the best activity against Ssang and a very good activity against Smut. Three mouth rinse were not active against the bacteria, and two of them were active against only one bacteria.

51 Acidogenicity and aciduricity of genotypes of s. Mutans isolated from dental biofilm formed in situ in the presence and absence of sucrose

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The aim of this study was to evaluate the acidogenicity and aciduricity of *S. mutans* genotypes isolated from dental biofilm formed in situ during 3 days in the presence or absence of sucrose. Sixteen genotypes were evaluated, previously isolated from 5 volunteers (Ethical Committee Approval CEP/FOP 004/2006). Acidogenicity was evaluated by the determination of glycolytic pH drop curve. The area under the pH curve and the hydrogenion concentration were calculated. Aciduricity was evaluated by acid tolerance and F-ATPase activity. For acid tolerance, after reactivation, the genotypes were resuspended in glycine buffer pH 7.0, 5.0 or 2.8. Immediately after the resuspension and after 30 and 60 min, aliquots were plated on BHI agar and CFU were counted. For F-ATPase activity, after reactivation of genotypes, the suspension was centrifuged, the pellet was permeabilized using toluene and resuspended in Tris-maleate buffer. Then, ATP was added to the suspension and the activity of F-ATPase was evaluated from the inorganic phosphate determination. All experiments were performed in triplicate. There was no difference between the genotypes of *S. mutans* isolated in the presence and in the absence of sucrose with regard to the pH drop curve, acid tolerance and F-ATPase activity. In the conditions of the present study, the genotypes of *S. mutans* isolated from dental biofilm formed in situ during 3 days in the presence and in the absence of sucrose presented similar acidogenicity and aciduricity.

53 Dentin bond strength of experimental luting cements with bis-gma and tegdma replaced by bisema4.

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This study evaluated bond strength (BS) of experimental luting cements where the Bis-GMA and TEGDMA were replaced by Bis-EMA4. Seven different cements were prepared with the following proportions (% in weight) of Bis-GMA/TEGDMA/Bis-EMA4: 50/50/0 (R1), 50/30/20 (R2), 50/10/40 (R3), 50/0/50 (R4), 30/10/60 (R5), 10/10/80 (R6) e 0/0/100 (R7), canforquinone (0.4 w%), N,N-dimetyl- ρ -toluidine (0.8w%) and hydroquinone (0,1 %) were added at the cements, such as 60% in weight of silanized stroncium glass filler. Conic cavities (2mm in largest diameter x 1.5mm in smallest diameter, 2mm in depth) in dentin were made in bovine teeth. After the adhesive system application (Single Bond 2, 3M ESPE) the cavities were restored with the experimental materials (n=10), with 40s photoactivation. The BS was evaluated after 24 hours to push out test, and the values calculated in MPa. The data were submitted to ANOVA and to Student-Newman-Keuls test (p<0.05). The patterns of failure were evaluated under 40x magnification, being classified as adhesive failure, cohesive in cement or mixed. The averages were R1 (23.4)c, R2 (28.1)bc, R3 (30.4)abc, R4 (31.6)ab, R5 (37.2)a, R6 (33.2)ab, and R7 (33.0)ab. In general, replacement of TEGDMA by Bis-EMA4 increased the values of BS compared to the groups R1 and R2. A replacement of Bis-GMA not produced significant influence in the BS. Predominance of mixed failures was detected for all groups. The replacement of TEGDMA by Bis-EMA4 increased the strength values from the dentin bond.

50 Analysis of oral healthy conditions of sugar-cane cutters in Bauru-SP

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This study to analyze the conditions of life and buccal cutting health of cane-of-sugar in the region of Bauru-SP. A survey was carried through buccal injuries epidemiologist injuries of 229 agricultural workers, according to Form of the WHO (World Health Organization) for Studies Epidemiologists. Also verbal and audiovisuais lectures with the objective had been carried through to increase the knowledge of these workers on the cares with the health. The joined CPOD was of 13,8, what ally to not the buccal hygienic cleaning can be explained by the high consumption of sugar cane-of-sugar during the hours of working. Of all the sample, only 45.8% present gengival, decurrently health of the verbal lack of hygiene and the little access the odontologic attendance. About half (50.20%) of the analyzed workers they search odontologic attendance in the public service, having pain as main complaint (46.30%). However, a 56,30% total told not to have received information on as to prevent buccal problems and more than 77.70% complained of the treatment necessity. In accordance with the gotten results, can be affirmed that the agricultural worker needs more orientation on the cares with its health and bigger access to these services, and the companies must collaborate with the supplement of these necessities, in order to improve its production and to increase the quality life of its workers.

52 Porcelain firing cycle: Influence of marginal misfit in abutments UCLA

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The process of the cast of metallic frameworks dental prosthesis can cause marginal misfit that this might induce liberation of tensions is harmful to the implant/bone interface. The aim this study was evaluate the influence of the porcelain firing cycle in the marginal misfit of the prosthesis fixed supported by implants. It were used 10 structures of 3 elements with abutments UCLA submitted to cycle of burn simulating the porcelain firing cycle to titanium. The evaluation was based in single-screw test method. The interaction between porcelain firing cycle and abutments UCLA was significant (p=0,002), showing relation of dependence between this factors. The averages obtained were (μm): Start – 83,93; Bonder – 101,94; Opaque – 16,86 Dentin –111,61 Glaze –112,89. The smallest values of misfit were observed before the porcelain firing cycle, this values showed difference of the cycles Bonder, Opaque and Dentin, not showed difference between themselves, and showed intermediated values. The most values found were after the cycle Glaze, differing statistically the others. (p<0,05). The porcelain firing cycle increase the values of marginal misfit in abutments UCLA. Financial Supported by FAPESP

54 Minimally-invasive surgical approach in intra-bony periodontal defects

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The purpose of this study was to evaluate the clinical performance and patient satisfaction after a minimally-invasive surgical technique (MIST), associated with Emdogain (EMD), in the treatment of intra-bony defects. Twelve patients presenting one uniradicular teeth with probing depth (PD) and clinical attachment level (CAL) loss > 5mm and bleeding on probing (BOP), associated with radiographic evidence of intra-bony defect, were selected. Intra-bony defects were treated by MIST, associated with EMD. Full mouth plaque and bleeding score, local BOP, relative CAL (RCAL), position of the gingival margin (PGM) and PD were measured at baseline, 3 and 6 months. After 6 months, the patient satisfaction associated with aesthetics and the perception of improvement of gingival bleeding, redness and gingival edema; hygiene ability was measured. At 6 months, the RCAL gain and PD reduction were 3.10±2.02mm and 3.63±2.23mm, respectively. No statistically significant differences were noted in PGM increase (0.94±1.59mm). After 6 months, 100% of the patients reported maximum aesthetic satisfaction and improvement of gingival bleeding, redness and edema gingival and hygiene ability. The use of MIST with EDM promoted significant improvements in clinical parameters and maximum aesthetics satisfaction.

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Evaluation of genotypic diversity of streptococcus mutans using distinct arbitrary primers

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Streptococcus mutans has been considered one of the main etiological agents of dental caries and the genotypic diversity counts may be considered as a virulence factor of this bacterium. For genotyping with polymerase chain reaction with arbitrary primers, several primers have been used in order to improve complexity and specificity of amplicon patterns. Thus, the aim of this study was to evaluate the degree of agreement of genotypic identification among AP-PCR reactions performed with 5 distinct arbitrary primers of *S. mutans* isolated from saliva. Stimulated saliva was collected from 11 adult volunteers for isolation of *S. mutans* and a total of 88 isolates (8 per volunteer) were genotyped with arbitrary primers OPA 02, 03, 05, 13 and 18. Fourteen distinct genotypes were identified in the saliva samples, with most of the volunteers, 9 out of 11, presenting just one genotype in saliva. The results suggest that the primer OPA 18 was not efficient, since it identified only one genotype of the volunteers, on the contrary of other primers that identified two. In this way, the primers OPA 02, 03, 05 and 13 were adapted to value the genotypic diversity of *S. mutans* isolated of the saliva of adult volunteers. FAPESP 06/02308-9

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Adults oral health in a town with low caries prevalence, Paulínia /SP

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Despite the decline in the prevalence of tooth decay in children from several countries, to ascertain whether other age groups, as adults, the literature presents divergent results, but pointing to conditions of poor oral health. The purpose of this study was to assess the oral health of adults in relation to dental caries and the need for prostheses in a town that has low prevalence of caries at 5 and 12 years. The criteria used followed the recommendations of the World Health Organization. The sample was 101 adults (35 to 44 years) residents in Paulínia - SP, random selected. Besides the descriptive analysis, was used the Chi-square test ($p < 0.05$). The DMFT was 22.3, with the largest percentage matched the teeth restored (47.1%) followed by missing teeth (44.8%). The present average of teeth was 21.7, among them, 9.3 were sound. Women had, the more teeth restored (11.6), fewer teeth decay (1.49) and lost (9.4) than men ($p < 0.05$). As the needs of prostheses, most adults do not require upper prostheses (53.5%), but needed lower prostheses (71.3%). The greatest need of prosthesis was combination of prostheses - fixed + removable - in which 18.8% referred to the upper arcade and, 35.6% the lower. Even in a city that has low experience of caries at 5 and 12 years, the condition of oral health among adults is revealed by a high percentage of teeth restored and lost and with this, the need for prostheses is high.

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The effect of the enamel moisture condition on the bond strength of self-etches adhesives

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The aim of this study was to evaluate the influence of the moisture condition of enamel on the bond strength of three single-steps adhesive systems. Thirty human third molars were randomly allocated in 9 experimental groups: 3 adhesives (Xeno III, Adper Prompt e iBond) x 3 moisture conditions (dehydrate enamel – De, dry – Dr, and moist- Ms). The teeth were mesio-distally sectioned, parallel to the long axis of tooth in two halves. Each half was embedded in polystyrene resin cylinder maintaining the buccal/lingual surface exposed. This exposed surface was abraded until to obtain both flat exposed enamel and dentine. For the dehydrate condition, the teeth were immersed in ethanol solutions. After the adhesive procedures, resin composite cylinders with 1 mm of internal diameter and about 2 mm of height were build-up on enamel. A shear load was applied to the samples at a crosshead speed of 0.5 mm/min until failure. Data were statistically analyzed two-way ANOVA and Tukey test ($p < 0.05$). The results in Mpa for each adhesive were: Xeno III – Dr: 14,13a, De: 8,24b and Ms: 7,37b; Adper Prompt - Dr: 10,05a, Ms: 9,47ab e De: 5,69b; and iBond - Ms: 13,26a, Dr: 8,99b e De: 6,55b. The De condition didn't show significant difference between the adhesives. In dry enamel, the iBond presented the worst results, and there was no difference between the other adhesives. However, the iBond presented highest strength values in moist enamel than Xeno III. In this condition, the Adper Prompt had intermediary values and no difference with the others. The moisture condition of the enamel for the highest strength values was adhesive dependent.

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Pain and life quality perception over low wages population - a pilot study

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Temporomandibular disorder diagnosis is generally based on the signals and symptoms related by the patient. Some authors point to a great variety of data concerning the Temporomandibular Disorder predominance over the population. This can be attributed to the patterns of the studied population, and also to the diagnosis system used. The aim of this work was to verify the frequency of the Temporomandibular disorders indicators presented over low wages population and to correlate it to their perception of their life quality and general healthiness. This study involved forty volunteers that looked for odontological treatment at the Dental College of Piracicaba, 29 women and 11 men, average age of 27,83 years old. It was used a adapted questionnaire based on another questionnaire from UNIFESP - Head Institute. The results indicated that 87.5 % of the total amount presented clinical signals and symptoms which point to a probability to develop temporomandibular dysfunction (72% women and 28% men). Nevertheless when the volunteers were asked about their general health 74.3% considerate it good, 22.9% reasonable and only 2.8% bad. Also, when they were asked about their life quality, 54.3% considerate it good, 42.5% reasonable and 2.9% bad. According to these results the clinical signals and symptoms presented at the population studied do not change the perception of their life quality and their health in general at the same proportion.

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Aesthetical approach in immediate implant with frictional Morse taper connection

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The planning and replacement of aesthetic dental elements have been changing with the Implantodontology therapy approach, especially in the installation of immediate implants after tooth removal procedure. This procedure makes possible the maintenance the integrity of extraction sockets and contributes to the preservation of interdental papillae around the placed implant, aided by immediate provisional crown. This case report presents rehabilitation with immediate implant with frictional Morse taper connection after tooth removal in upper central incisor with fractured root. This technique consists in mucosa flapless tooth removal procedure, perforation in dental socket, utilization of autogenous bone graft collected during the implant perforation, and a functional and aesthetical immediate rehabilitation of the case.

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Evaluation of hospital patient relates about relationship physician and dentist during your treatment

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A subject studied by Periodontal Medicine relates about the influence of female hormonal at the periodontal inflammatory response, and some authors consider periodontitis a risk factor to preterm low weight birth babies. During the treatment of yours patient, is essential the communication between health professionals. This study evaluated relates of patients about frequency of dentistry and medical consult, knowledge about periodontal disease, hormonal alterations, preterm birth babies and frequency of dentistry-medical communication during your treatment. A total of 65 volunteers, on gynecologic or obstetric care, were questioned for 03 calibrated researchers. The answers were submitted to statistical analysis of chi square test. The gynecologic consults were more common than dentistry ($p < 0.0001$). The patients didn't know about periodontal disease ($p < 0.0001$), but related about gingival bleeding during oral hygiene. The almost total of patients didn't relate about preterm birth babies or hormonal alterations ($p < 0.0001$). The number of medical-dentistry indication was low ($p < 0.0001$). The concepts of periodontal medicine must be more transmitted between health professionals, for exist more communication between physician and dentist during the treatment of yours patients, and propitiated a complete evaluation to attend your necessity.

Effect of professional fluoride application and fluoride dentifrice use on root dentine

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The decline of dental caries prevalence observed worldwide has been explained by the widespread use of fluoride (F), which interferes directly in the de-remineralization process. However, little is known about the additive effect of F use combination methods in dental caries control, especially in root dentine caries. Thus, the aim of this in situ study (Ethical Committee Approval CEP/FOP 039/2006) was to evaluate the anticariogenic potential of professional fluoride application (APF) and fluoridated dentifrice combination by root dentine F reactivity products. Twelve volunteers wore palatal appliances containing bovine root dentine slabs, which were subjected during 4 phases to a high cariogenic challenge (sucrose 20%, 8x/day) and to the following treatments: non-fluoridated dentifrice (DNF) or fluoridated dentifrice (DF) 3x/day, APF + DNF e APF + DF. The dentine slabs of APF groups were pre-treated with fluoride gel 1.23%. The concentrations of calcium fluoride (CaF₂) and F incorporated by dentine were determined before APF application (control group), after APF application (APF group) and after 7 days in situ. The results (mean ± sd) of CaF₂ and FA (µg F/cm²) for control group, APF group, DNF, DF, APF+DNF and APF+DF were respectively: 0.35±0.06a; 76.45±16.46b; 0.34±0.15a; 0.46±0.13a; 4.95±3.54c; 11.36±5.89d e 1.08±0.58a; 9.83±1.98b; 2.11±1.36c; 6.84±2.79d; 20.97±4.30e; 23.97±5.11e. Distinct letters denote significant statistical difference (p<0.05). In conclusion, data suggest the additive effect of APF and fluoride dentifrice use on formation of loosely bound F (CaF₂), which is important as F reservoir.

Effect of materials and flask closure methods on the adaptation of the maxillary denture bases

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The study verified the base adaptation made with Classico acrylic resin influenced by investment and flask closure. Sixty specimens were assigned in 6 groups (n=10): 1- stone investment, flask closure with clamp and polymerization; 2- stone, flask closure with RS and polymerization; 3- stone, flask closure with screws and polymerization; 4- silicone investment, flask closure with clamp and polymerization; 5- silicone, flask closure with RS and polymerization, and 6- silicone, flask closure with screws and polymerization. The polymerization was in water at 74°C for 9 hours. The resin bases were fixed on stone casts with adhesive, and cuts were made in the regions of canine (A), first molar (B), and posterior palatal (C). Dimensional changes between base and cast was verified with microscope at 5 referential points to each cut. Data submitted to ANOVA and Turkey's test (5%) showed that the RS system produced adaptation (0.166mm) with significance when compared to conventional packing (0.200mm) and flask with screws (0.211mm). In the cuts, the RS produced values (A=0.140mm, B=0.183mm, and C=0.256mm) with difference when compared to conventional closure (A=0.151mm, B=0.207mm, and C=0.286mm) and flask with screws (A=0.150mm, B=0.205mm e C=0.278mm). The A (0.140mm), B (0.185mm), and C (0.250mm) cuts showed values with significant difference. Better base adaptation occurred in the silicone inclusion, in the RS and in the canine region.

Anesthetic efficacy of articaine and lidocaine for incisive/mental nerve block

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This prospective randomized double-blind crossover study compared the anesthetic efficacy of 0.6mL of 4% articaine and 2% lidocaine, both with 1:100.000 epinephrine administered as incisive/mental nerve block to forty volunteers, in two sessions. Pulpal anesthesia of lateral incisor through premolars was tested with an electric pulp tester. The injection and postinjection pain were evaluated by using visual analogue scales. Articaine provided higher success rates (p<0.001) for all teeth, faster onset (p<0.05) for canine and increased duration (p<0.05) of anesthesia for premolars. The median duration of premolars anesthesia was 10 and 20 min, respectively with lidocaine and articaine. There were no differences in pain scores between the solutions (p>0.05). Articaine promoted higher anesthesia success and duration of anesthesia than lidocaine for most of the teeth after incisive/mental nerve block. The volume of local anesthetic used in the present study may not be appropriate for procedures lasting longer than 10 minutes.

Effect of cvd ultrasonic points on ceramic surface roughness

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After adhesive cementation of posterior ceramic partial restorations, the occlusal adjustment could result in a rough surface. The purpose of this study was to evaluate the effect of different diamond burs (DB) and CVD ultrasonic points (chemical-vapor-deposition) on a ceramic surface by means of surface roughness assessment. Six ceramic discs (IPS Empress) were obtained for each group and submitted to different treatments: C – control (glazed), DB-2135, DB2135F, DF2135FF, CVD-8.114, CVD-6.114. The specimens were underwent three readings to determine surface roughness (Ra) using a digital roughness meter (Hommel Tester T1000). Qualitative analysis was made by the scanning electron microscope. Data were analyzed statistically by one-way ANOVA and Tukey's test (p<0.05). The means and standard errors were 2.43(0.07); 1.37(0.05); 1.05(0.11); 1.67(0.07); 0.38(0.05) and 0.32(0.03) for each group respectively. It could be concluded that CVD points as well as fine finishing diamond burs could be used for ceramic grinding, because superficial texture were similar to control (glazed) group.

Roughness, surface free energy and adherence of candida albicans on acrylic resin modified by polytetrafluorethylene

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The colonization of removable dental prostheses with microorganisms improves the development of denture stomatitis, which is associated with adherence and colonization of Candida albicans. Acrylic resin properties such as roughness and surface free energy can contribute to the colonization and biofilm development formed by these microorganisms. Thus, the addition of modifiers that can interfere with the specific interactions between microorganisms and polymer surface has been proposed. One of the main modifier suggested is polytetrafluorethylene because its properties. Therefore, the aim of this study was to evaluate the surface roughness, contact angle, free surface energy and initial adherence between Candida albicans on acrylic resin modified with PTFE. Specimen (2.5 x 1.2 x 0.2) of acrylic resin (long and short cycle), without (control group) and with addition of 2% of PTFE were prepared and had the surface (roughness, surface free energy) characteristics evaluated. Moreover, Candida albicans adherence (UFC) was evaluated. The data were submitted to ANOVA and Tukey test with significance level of 5%. No statistical significance differences were found for roughness, surface free energy and number of colony forming units between the resins. Contact angle values were high for resin containing 2% PTFE polymerized by long cycle. In conclusion the addition of 2% of PTFE was not enough for producing surface modification and reduction of Candida albicans.

Pain evaluation of the temporal and masseter muscles in class II and III of angle

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Approximately 10% of the population has Class II of Angle and 2.5% has class III of Angle, can present or not chronic pain in masticatory muscles (Tucker and Ochs, 2005). The purpose of this study was to evaluate and compare the presence of pain in the temporal and masseter muscles in patients with class II (subtype II) and class III of Angle by applying the Research Diagnostic Criteria questionnaire (RDC), axis I. This study was carried out with twenty volunteers aging between 18 and 36 years old, which seek treatment in the surgery section of the Piracicaba Dental School. From 20 volunteers, 13 were classified as having class II of Angle and 7 classified as class III. The volunteers were submitted to a masticatory muscles exam focusing the items about pain sensitivity to muscular palpation. For the statistical analysis of the data it was used a computer program named Statistical Analysis System (SAS). It was used a critical level of 5% (p < 0.05). For the temporal muscle, 100% of the individuals class III did not present pain in any of the three portions evaluated: posterior, middle and anterior. The volunteers class II, 46.15%, 38.46% and 76.96% presented pain in these three portions respectively. There was a positive statistic correlation between the presence of pain in temporal muscle and the individuals class II, especially for the anterior temporal. Both groups presented pain in masseter but there was no statistic correlation with the type of dentofacial deformity. At the evaluation and treatment of the dentofacial deformities studied in this research, in particular individual with class II of Angle (subtype II), temporal and masseter muscles should receive especial attention.

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Effect of flask closure methods on the adaptation of the complete maxillary denture bases

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This study verified the effect of flask closure methods on the adaptation of complete maxillary denture bases, made with Classico thermopolymerizing acrylic resin. Twenty stone cast-baseplate wax sets (n=10) were embedded with stone in traditional metallic flasks, according to protocol: 1- flask closed by the traditional clamp and immediate polymerization; 2- flask closed by the RS system and immediate polymerization. The acrylic resin was polymerized in hot water cycle at 74°C for 9 hours, in automatic thermopolymerizing unit. After flask cooling at room temperature, the resin bases were deflasked, finished, and fixed on the stone cast with instantaneous adhesive. The cast-base set was transversally sectioned in the corresponding regions at distal of canine (A), mesial of first pre-molar (B), and palatal posterior region (C). Base adaptation to the stone cast was measured at 5 points for each section with Olympus microscope with accuracy of 0.0005mm. Data were submitted to ANOVA and Tukey's test (5%). Mean results for the base adaptation were: traditional clamp= 0,212mm and RS system= 0,173mm. In the regions: A (traditional clamp=0,160mm and RS system=0,121mm); B (traditional clamp=0,195mm and RS system=0,170mm); and C (traditional clamp= 0,281mm and RS system= 0,227mm). The flask closure method with the RS system promoted better adaptation of the base to the stone cast, with values with statistically significant difference when compared to the traditional clamp method.

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Cariogenic potential of sugared infant formula

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The addition of sucrose to baby bottle containing infant formula is a usual practice in the first childhood, but its cariogenic potential is not known. Thus, the objective of this study was to evaluate the effect of milk and soy-based infant formulas, sugared or not, on the microbiological composition and acidogenicity of dental biofilm formed and on enamel demineralization. An in situ study conducted in 3 phases of 10 days each, during which 11 adult volunteers wore palatal appliances, containing 6 slabs of sound deciduous human enamel, whose surface microhardness (SMH) was predetermined. In each phase, each set of 3 slabs was treated with: distilled deionized water (negative control); 10% sucrose solution (positive control); Nestogeno 2 (Nestlé® milk formula); Nestogeno 2 + 10% sucrose solution; Nan Soy (Nestlé® soy formula); Nan Soy + 10% sucrose solution. SMH was determined again and its percentage of change (%SMC) was calculated. The %SMC (mean ± SD) were respectively for groups: -3.1±2.8, -49.6±27.3, -14.6±12.7, -29.7±27.5, -30.5±18.1, -51.7±19.4. Both formulas induced significant enamel mineral loss, which increased when sucrose was added (p<0.05). Both infant formulas were fermented, decreasing the biofilm pH (p<0.05), irrespective of sucrose addition. Also, lactobacilli counts in the biofilm were higher under the use of both formulas when compared to the water group (p<0.05). In conclusion, the results suggest that milk and soy-based formulas present potential to induce demineralization in deciduous enamel, which was increased when sweetened with sucrose.

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Evaluation of dental enamel roughness after microabrasion with different polishing methods

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Enamel microabrasion mainly consists of abrading only selected discolored areas, or those with superficial structural changes. As the microabrasion technique involves the use of abrasives associated with acid, it is necessary to assess the roughness of enamel after this treatment and to polish the surface. The objective of this in vitro study was to evaluate the roughness of tooth enamel after microabrasion, followed by different methods of polishing. 60 bovine incisor teeth were selected, and divided into two groups (n = 30). The two groups were subjected to the following treatments: G1-equal shares of 37% phosphoric acid and pumice; G2-hydrochloric acid (6.6%) associated with silicon carbide (Opalustre). Then the two groups were divided into three subgroups (n = 10): A- aluminum oxide discs of fine and super fine grain (Sof-Lex), B- diamond paste for finishing of compound associated with felt discs, C- Enhance tips (Dentsply). Roughness readings were performed before and after microabrasion (L1 and L2) and after polishing (L3). The results were submitted to analysis of variance, followed by the Tukey test (p<0.05). Group G1 differed statistically from G2, showing greater roughness. L2 differed statistically from L1 showing higher roughness values. For G1, the enhance tips decreased the roughness of the enamel, and the other systems showed no statistical differences. For the G2, only the Diamond paste led to a reduction in roughness. All products increased the roughness of enamel. However, the Opalustre was less abrasive. The effectiveness of the system depends on the abrasive polishing used.

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Gemella morbillorum in primary and secondary endodontic infections

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Gemella spp. is opportunistic microorganisms that can cause severe localized and generalized infections. They have been associated with human infections such as arthritis, meningitis, bacteremia and endocarditis. The aim of this study was to investigate the presence of *Gemella morbillorum* by culture or nested-PCR in primary and secondary endodontic infections. Microbial samples were taken from 50 cases with primary and 50 cases with secondary endodontic infections. Microbiological techniques were used for culture and identification. DNA extracted from the samples was analyzed for the presence of the target species using species-specific primers. Culture and PCR identified the species in 23/100 and 77/100 root canals, respectively. Culture yielded the test organism in 19/50 (38%) of root canal samples from primary and in 4/50 (8%) from secondary infections. PCR yielded the test organisms in, respectively, 41/50 (82%) and 36/50 (72%) of the primary and secondary root canal infections studied. It can be concluded that *G. morbillorum* was identified more frequently in primary endodontic infections than in secondary ones. A high frequency of the target species was detected by PCR than by culture. Supported by FAPESP (05/55695-7, 07/58518-4) and CNPq (305437/2006-2, 470820/2006-3).

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Labor dentistry knowledge from occupational health professional in the industries

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The purpose of this study was to analyze labor dentistry knowledge from occupational health professional in the industries. A questionnaire with ten questions was applied to the occupational health professionals from different branches of activities in the area of Goiânia-GO, Anápolis-GO and Palmas-TO. Through a simple casual sampling, 15 industries were selected to participate in the study. 53 professionals answered to the questionnaire. In relation to the professionals' position, the work safety technicians corresponded to 54.72% (n=29), following for the work safety engineers with 20.75% (n=11). Regarding the existence of workers' occupational diseases, 66.04% of the professionals affirmed any occurrence not to exist among the employees. Treating of the company interest in relation to employees' buccal health, 79.25% of the professionals answered positively as for that interest. Only 22.64% of the professionals answered to have knowledge regarding the specialty labor dentistry. The present study evidences that the few professionals know on labor dentistry and they need to value the given attention the workers' buccal health in the industries. Important to have changes in the space of integration of the multi professionals, addressing the reflection for the integration forms and the need that it is imposed the industries managers of planning their actions in an articulate way with the workers, starting from the analysis of the situation of the occupational health in the industry.

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Piercing intra and peri oral: What young people need to know

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The piercing has been taking frequent and greater acceptance, especially among teenagers and young adults in various areas of the body, but the common preference is in oral tissues as lips, cheeks and tongue. Piercing use became one more durable tendency among the teenagers to express themselves, to be different, or even a simple whim. This study presents a literature review about piercings intra and peri oral, contributing to the dental practice and alert the teenagers about the problems that could appear with the use of this accessory. Among the risks and complications associated with this practice are frequent: the gum recession, fractures and broken tooth, development of parafunctional habits, edema, diseases transmission, bleeding, speech difficulty, piercing aspiration and oral hygiene. The lack of care with the installation and the maintenance of piercing could bring to the teenager a lot of problems. We conclude that explain for teenagers the problems with piercing use is the role of surgeon dentist than the teenager could decided with they use or not oral piercing.

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The objective of this study is to describe the situation of the work accidents from wood industries and worker's health, in different states (MT, SC, DF). The changes and transformation of the nature feels a disorganized occupation in search of economical poles for the survival need. The wood industry is in prominence position as third larger coefficient of fatal accidents frequency in Brazil just losing for mineral extraction and building site. Studies tell that a worker with buccal problems can contribute to work accidents. In the study of analysis of risks of the worker's health in Mato Grosso, we obtained the following results: 11% mutilated workers, 25% workers with other sequels, 28% workers with deformity of the spine. In Santa Catarina the results were: 7.7% amputation of the hands, 7.6% workers jumped of machines in movements being parts more reached head and neck, 5.6% crush of tissue as hand and forearm. Studying the industries of federal district with activities of prunings of trees verified in 66 workers' research that more of the half of the workers affirmed to have suffered work accidents being 56%, and part of the body more reached was leg 53.8% following by the head and feet with 23%. Meantime to this, we should become aware the employers of the not omission of facts happened in the industries, instituting in the health occupational specialized professionals, acting directly in the prevention of the general and buccal health, reducing possible accidents as well as current buccal diseases of the work.

Santos CP*, Soares EF, Queluz DP

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The Xingu Indian's Reservation in its 2.642.003 acres is located in the northwest of Mato Grosso and it was created in 1961 to protect the natural environment and the Indian population who lives in the area. According to their culture, the reservation is divided in three: Low, Medium and High Xingu. It was in this last one where two students of the Dental College in Piracicaba (University of Campinas) stayed fifteen days between the local Indians doing some volunteer work to introduce the habits of oral hygiene.

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The Law 3214/ 78 of Labor Department Government and the subsequent norms by General Safety Office and Medicine of the Work edited the Regulation Rules (NRs), and NR6 is the one which describe all devices or products to the protection workers by safety and health risks (EPIs). The objective of this work is a literature review about EPIs focusing on two types: the disposable masks and respirators and their performance as a physical protection barrier of chemical, biological and physical agents in the areas like health, recycling paper, waste collector, construction, painting, agriculture and industries of food, furniture, metal and textile. In the health area some types of disposable masks were ineffective, leaving the responsibility to professional take care when they choose what type of protection they will use. In the other areas the importance of educated workers on the correct use of this equipments and the risks which they exposed was the most covered topic, not discharged the efficiency of use such equipment.

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The dentistry practice demanding and challenging presents risks to the professionals evolved. The labor environment of the dentist contributes a lot to the development of occupational diseases. Most of the time, dentists are exposed to biological, chemical, mechanical and physical agents that can affect health and lead to diseases. The present study analyses a few special diseases related to dentistry and will be helpful to warn dentists about the necessity of prevention. We will be focusing on different etiological factors, manifestations, as well as the prevention. Occupational diseases such as hand dermatoses, mercury intoxication, viral hepatitis, aids, hearing loss, LER/DORT and stress can be prevented by the professional. Stressful agents are common in the daily routine, related to patients and profession. Expectation, anxiety, patient's absence and others related to patients; while job market, environmental conditions and team work are related to the profession. We conclude that we need to become aware of occupational diseases and to warn future professionals as well as those who are practicing about the importance of self health care. Take care of yourself as a human being in the first place so that you are ready to take care of others.

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The temporomandibular dysfunction (TMJ) is considered a term used to gather a group of diseases that reaches the mastigatory muscles, temporomandibular articulation and adjacent structures. In agreement with the definition given by International Association for the Study of Pain (IASP), not just the physical components and chemist involved in the painful event are considered, but also the subjective and psychological aspects are crucial for the understanding of the painful complaint, especially, in patients with chronic pain. The present work has as objective to demonstrate through the national and international review raising the relationship among the temporomandibular dysfunction, their possible causes, signs, symptoms, diagnoses and possible treatments suggested by the literature related to the stress. It could be concluded that temporomandibular dysfunction has multifactor causes and they are directly related to the stress; they are found with larger prevalence in the feminine gender; patients present alterations in the pattern mastigatory; they are directly related with the psychological factors (depression, disturbance of the sleep, psychiatric problems); for the treatment execution, the patient should be evaluated as a whole; they were found relative data to the orofacial pain, relationship with absenteeism and their impacts in the quality of the workers' life.

Agostino JO *, Mialhe FL, Queluz DP, Silva RP

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During the period in that the children stay at the school, they suffer influences of the atmosphere and of the friends in relation to habits and alimentary preferences. Therefore, the present study aimed to evaluate these aspects in a sample of 150 schoolchildren of Piracicaba, SP, in the year of 2006, through an applied questionnaire to the same ones. When questioned on what they eat at the school, 38% answered that eat the snack offered by the school, snack of the canteen and house snack; 31% only feed of the snack that you/they bring of house and 23% only feed exclusively of the snack offered at the school. Among the one that attested bring food of their houses to eat during the interval, 21% affirmed to bring package snacks, 14% stuffed cracker, 13% juices, 7% chocolates and soda; 6% cakes, 5% bread, 3% milk with chocolate and 2% sweet popcorn. Among the ones that consume foods of the canteen, it was verified that 25% buy salted roasted or fried, other 25% acquire candies, 18% chewing gums, 10% snack type Elma Chips, 5% chocolate, 4% lollipop and 3% stuffed cracker. It is conclude that the consumption of the school snack is low, even this being elaborated by nutritionists of the municipal district, and that a lot of children bring food of house or they buy at the canteen of the school, characterized by present a high percentage of fat exposing them to a caries risk and overweight. It was clear in this work that the when the children are not being attended to accompanied by the parents or responsible, they like cariogenics diets and therefore health promoters programs promoters of health close to the same ones and also parents and teachers is necessary.

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The present work aimed to report the project experience in oral health “One week for Jesus” developed by the Methodist Church in the city of Jardim/MS. The project was created in 1996, having visited on those years several cities of several states. Ever since, with the missionaries and volunteers, every year a city is chosen and it is prepared the Municipal City hall close to an entire infrastructure for such event that has the duration of one week. Several areas are included in the project: basic medical service (oral health), social, evangelization and building site, tends as focus: to help, to guide and to evangelize. In the dental service were assisted: 884 people, 2.102 procedures (extraction, amalgam restoration, resin restoration, periodontic scratching), 142 total prostheses, 1.648 people assisted in oral prevention (fluoride topic application, distribution of dental pastes and brushes for adults and children). Activities as this should be valued, therefore they propitiate better conditions of health the population as a completely.

Coelho-Ferraz MJP*, Valvassori A, Queluz DP

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The Bioethics as an object of study reflective systematic inter and cross linked to ethics of human conduct, convene as emerging reality transcend the discursive dialogue to practice in order to rescue the human happiness in a plurality social, political, religious which occurs in the history of each person. The mouth as part of this body, physiological functions plays delicate and vital to maintaining health as a whole, because it is an organ of absorption of nutrients, essential for the physical and mental as well as an expression of national feelings, defense, short of vital importance to the physiology and behavioral aspect of the person. The gesture, the word, kiss, the singing, salivation, smoking, spitting, breathing, sucking, swallowing express itself visibly in the mouth as mechanical functions-psycho-functional. This study aims to reflect on the relationship of oral health in a global context involved with the application of life-style in front of some contemporary bioethical dictates. The Dental as a science of life, it is essential for health of the person in a plurality social, political and cultural construction that involves a full and ethics by means of its theoretical and practical action to benefit society in which we live. Knowledge of life and knowledge of values guide our action and it is essential and continuing to practice a more humane always bearing in mind that any exercise of relations professionals in health become recipients of bioethical discourse.

Gomes AC*, Queluz DP

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Along the time the man comes to realizing direct and strong relationship between occupational and health. The aim of this study is awareness in oral health is a reflection of occupational exposures, focusing the oral cancer and oral alterations. A large number of chemicals substances used in industry are a risk factor for cancer in workers. Poor air quality in the workplace is an important factor for occupational cancer. Some substances such as asbestos, benzene, wood dust and others, acting on the airways and lungs. The upper digestive air deal is one of the main routes to inhalation this carcinogens agents. Exposure to dust from products such as wood, asbestos, fibers, cement and coal is known carcinogenic to the sinuses (wood dust), but epidemiological studies have indicated the possibility that other anatomical locations to be affected too. Measures should be taken for improvements in the conditions of the worker's health avoiding the oral cancer due to occupational exposures and habits. After reviewing the literature, highlighted the need for more evidence about the causal relationship between occupational exposures and the development of oral cancer; concluding the need for further research so that it can be classified as occupational disease caused by exposure to the powder of cited products.

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Since the 1998 report published by the UNO (United Nations Organization) on the Human Development Index (HDI) which takes into account three areas (Health, Education and Income); Brazil is cited as a country of high HDI, which directly reflects the expectation of life of Brazilians. However, with this improvement in quality life also increase the need for social measures of prevention and intervention in several areas in the health concerns geriatric dentistry. This work aims to illustrate the various options for rehabilitation with oral prosthesis, and to educate individuals on appropriate methods of cleaning and maintenance. Brazil has today about 11 million people over 60 years, and a large percentage of these need an oral rehabilitation with oral prosthesis. Among the various options of prostheses available today, the partial removable prosthesis, fixed prosthesis and total are among the best known. The proper hygiene of prostheses is an important means for maintenance of oral health. Prostheses with poorly adaptation, conservation inappropriate, prolonged use, can cause health problems. The method most used to sanitize prostheses is brushing and this could cause damage to the acrylic resin, reducing considerably the life of its main component. Therefore, it is necessary, that the carriers are guided by surgeon dentist about how to maintain proper oral hygiene, cleaning their teeth and prosthetics to prevent oral diseases.

Santos NMT*, Queluz DP, Agostinho J

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Facial injuries and dental trauma can affect different groups of people, such as: when children begin walk, youth, adults, workers in general and even elderly. The purpose of this study is providing information with respect to the best attitudes to be taken against facial injuries and dental trauma, and information to prevent accidents. Such knowledge is vital, because the statistics show that increasing number of facial injuries from car and work accidents, robbery and others. Different causes leading to facial trauma: interpersonal violence, falling, running over, sports, accident of car and motorcycle, occupational accident, injury by a weapon. The interpersonal violence is the mechanism of trauma that results in greater number of fractures and contusions. The use of seat belts and helmets reduce the frequency and severity of facial injuries caused by accidents, car and motorcycles. In the different sports are the greatest risk of contact or impact, such as boxing, judo, karate, jiu-jitsu, fight Greco-Roman, among others. The dental injuries are situations that require emergency dental care to a professional. In conclusion, there is need to implement prevention programs for dental trauma due to its high prevalence, and due to lack of awareness for seeking treatment.

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The act of caring has been awarded to the parents. In the society, parents are responsible for children with regard to general care, feeding, clothing, education and health. The objective of this work is to understand the influence in oral hygiene habits of the parents in relation to the children's oral health. Education is an instrument of social transformation. In the specific case of health promotion in children, it is essential to motivate parents that they understand the real importance of oral health in general health of their children. It is important to emphasize the co-responsibility of the parents in the promotion and maintenance the conditions of oral health in their children because it is common the fact of some parents only bring children for dental evaluation to feel free about the responsibilities with the care in mouth hygiene's transferring this to the dentist. The dental caries is the biggest reason for dental consultation. Over a study, the increment of caries in mother's dentition was computed, and showed significant correlation with the incidence of caries in children's teeth. This information supports the evidence of association between the incidence of caries and presence of plaque in early childhood with the influence of maternal factors. Recommendations for a good oral health: teeth's hygiene, periodic visit to the dentist, good feeding, avoids sugar, use of fluoride and education. The conclusion is that the care through health education is of crucial importance in the treatment of oral diseases, and one of the functions parents, that is the work of steering and charge child hygiene.

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The anatomical knowledge-physiological dynamics of chew and facial muscles is important for understanding the effects on biomechanics of the complex craniofacial, providing the basis for planning of treatment, since the facial muscles of mastication and are related to breathing , To chew, speech, communication, with the identity of the person. The records of emotions such as joy or sadness, health or pain, of concern, depression are printed in our face. As the facial structure can be modified by the function, the performance of both therapeutic and Dentistry Speech on the Stomatognathic System have a leading role in maintaining the function and aesthetics of the face. It is proposed to this study, the photogrammetric assess the efficiency of the protocol of Facial Rejuvenation Applied Functional (RFFA) associated with isometric exercises designed to recover as far as possible, the functional balance of the face. It was considered for this study, that the protocol RFFA acted with efficiency in the reduction of wrinkles, sagging brands of facial expression and suggesting a better blood supply of facial muscles and chew and contributing to a healthy way for the pursuit of beauty in all stages of life.