All abstracts appear as submitted by the authors without editing.

001 Role of the Municipal Council of Science and Technology of Piracicaba

QUELUZ, D.P.*

Aim: The aim of this study is to discuss the role of the Municipal Council of Science and Technology (MCST) in Piracicaba. **Methods:** The law 4918/2000 provides the creation of the MCST and other measures. Piracicaba MCST consists of 18 members from different sectors (municipal, schools of higher education, associations, city council, entities related to environmental protection, and others). MCST has eleven competencies, among them: to advise, study and propose to the Municipal Government of Piracicaba guidelines of municipal politics in science and technology; respond to consultations on matters within their competence; coordinate with State and Municipal Councils of Education and other community organizations, in order to exchange experiences, improving the performance of the college, as well as the possibility of forwarding proposals for science and technology regional basis; among others. This Act was amended by Law 5380/2004. In 2003 by Decree 10206 approval of the Bylaws of MCST Piracicaba which features six chapters occurred. **Results:** The MCST is supported by laws and regulations, which contributes to the development of improvements that directly impact the life of society, such as school and new discoveries in medical education. This growth should be responsible, following the trends of sustainability. **Conclusions:** It can be concluded that many of the skills are the MCST; however, it is important to emphasize that the MCST should be proportional to the responsibilities objective conditions of their work and the reality of the municipality.

002 Evaluation of stress in the bone structure around implants with different geometries – a finite element analysis

MARTHO, D.*; FREIRE, A.R.; ROSSI, A.C.; PRADO, F.B.

Aim: To study the distribution of stress transmitted to bone structure around implants with different connections by Finite Element Analysis. **Methods:** The geometry of specific bone type based on bone density (compact and cancellous bone) and implants (Morse Taper and External Hexagon) was built using Rhinoceros 3D 5.0 software. Finite element analysis was performed using ANSYS v14 software. A tetrahedral finite element mesh with elastic linear material properties was used. A masticatory load (200N) was applied in different directions on the implants to evaluate the equivalent von Mises stress, in which assessed the transfer of forces from the implant to the bone tissue. The regions surrounding the bone structure at the implant collar and the first threads were evaluated, which are sites of occurrence bone remodeling caused by mechanical action of the implants. **Results:** Morse Taper implant presented lower stress values compared to External Hexagon implant in all results. There were changes in the distribution and intensity of the stresses according the load direction, where the oblique load caused higher stress compared to axial load. **Conclusions:** Variations of implant connection geometry and load direction influenced the distribution of stress transmitted to bone around the implants.

003 Clinical/SEM evaluation of pit and fissure sealants after 22 years

SUNDFELD-NETO, D.*; MACHADO, L.S.; FRANCO, L.M.; SALOMÃO, F.M.; MARTINS, L.R.M.; SUNDFELD, R.H.

Aim: Glass ionomer cements possess several properties that support their consideration in a wide variety of clinical applications including pit and fissure sealants. The aim of this study was to compare and evaluate Fuji II, Variglass and Vitrebond glass ionomer sealants in terms of retention and caries incidence release between groups. **Methods:** After twenty-two years, 49 teeth that had their pits and fissures sealed with photopolymerized glass ionomer materials, were assess by clinical and scanning electron microscope (SEM) evaluation; emphasizing the application techniques, three types of materials and its presence in the fissure at long-term follow-up. The materials were employed after dental conditioning with phosphoric acid of occlusal surface. **Results:** The clinical analysis appointed that photopolymerized glass ionomer materials suffered great abrasion, but it was observed, at this time also, that the SEM indicated that remnants of sealer material are retained in the deeper parts of pits and fissures, exercising their carious lesion preventive effect. There was partial or complete retention of the sealant in all of the treated teeth. Clinical evaluation showed no incidence of caries. **Conclusions:** After two decades of routine provision of pit and fissure sealants, we are able to conclude that placement of photopolymerized glass ionomer materials is a highly effective approach for prevention of pit and fissure caries, and may be used as a selant material if correctly applied.

004 Stress in hospital nurses influencing systemic and oral diseases

RODRIGUES, D.*; QUELUZ, D.P.

Jobs that require great responsibility can cause serious damage to the body of the individual as stress. Stress is one of the triggers of disease, producing the appearance of systemic and oral diseases in different professionals. **Aim:** To evaluate the stress as well as oral and systemic changes in nurses from a public referral hospital in Piracicaba-SP. **Methods:** 60 nurses of both sexes, all races and all ages with higher education were invited to attend the study. Nurses responded to Stress Symptoms Questionnaire (ISSL) and the diseases and / or psychosomatic problems questionnaire. Then oral evaluation was performed, seeking changes associated with stress. **Results:** 51.32% with level of stress in phases II and III. In relation to psychosomatic changes, 48.64% reported having headaches and have gained weight lately. Already in the oral assessment can be found 32.43% reporting sore sometimes and 59.45% had nibbled always mucosa. **Conclusions:** Most nurses showed some level of stress and various psychosomatic symptoms. Some of them also showed some changes in oral order could not rule out the possible association, since the sample was not sufficient to demonstrate any association between the study variables. This fact does reflect the importance of further studies in occupational health with a focus on health and quality of life.

005 Assessment of periodontal status of patients with chronic renal failure

COSTA, D.R*; MATARAZZO, F.; PIERALISI, N.; SILVA, C.O.

Aim: Periodontal disease (PD) is considered by many observational studies, a risk factor for chronic kidney disease (CKD). The aim of this study was to establish the periodontal profile of CKD patients (stage 5) on hemodialysis (HD) and submitted to renal transplantation (TX) and to further associate periodontal condition with salivary flow tests (urea and pH) in the different groups. **Methods:** The clinical parameters evaluated were probing depth (PD), clinical attachment level (CAL), bleeding on probing (BOP), visible plaque index (VPI) and gingivitis index (GI), tests were also used to evaluate salivary flow, pH and urea. **Results:** Twenty-two subjects were included in the study, ten TX (M = 7 / F = 3) and twelve HD (M = 7 / F = 5). The mean clinical parameters (PS), (SS), (IPV) and (IG) were similar between groups except for NIC that has been shown statistically different. A correlation within groups (HD and TX), which compared the extent and severity of PD with urea and pH levels of salivary urea was related to increased severity of PD. **Conclusions:** There was no difference in mean clinical parameters evaluated between groups (TX and HD). But there was an association of increased extent and severity of PD with increased rates of salivary urea.

006 Evaluation of parameters of masticatory function in overweight and obese children

ARAUJO, D.S.*; BARBOSA T.S.; MARQUEZIN, M.C.S.; GAVIÃO, M.B.D.; CASTELO, P.M.

Aim: Mastication is a complex physiological function that involves neuromuscular and secretory activities and prepares the food bolus for swallowing. Few studies have evaluated the influence of mastication on children's nutritional status. This study aimed to verify masticatory parameters in overweight and obese children and the relationship between bite force (BF), anthropometric evaluation, food consistency, breastfeeding and occlusion. **Methods:** The sample consisted of 204 children, aged 8-10 years, divided into normal-weight, overweight and obese. Unilateral BF was measured using a digital gnathodynamometer. Anthropometric and nutritional evaluation involved weight, stature and body muscle mass by bioelectric impedance analysis. Occlusion was evaluated using the Index of Orthodontic Treatment Need (IOTN), and food consistency was verified by a structured questionnaire. The time of breast-feeding, bottle-feeding and presence of sucking habits were also investigated. The results were submitted to descriptive statistical analysis, Chi-square test, ANOVA, correlation test and multiple logistic regression to determine the relationship between BF and the independent variables under study (alfa=0.05). **Results:** The time of breast-feeding (p= 0.402) and bottle-feeding (p=0.635) did not differ among groups, neither the food consistency. The regression model showed that the variables body mass index, orthodontic treatment need and muscle mass contributed significantly to the variation in BF. **Conclusions:** In conclusion, the time of feeding habits (breast/bottle) and food consistency did not differ between normal-weight, overweight and obese children. Moreover, BF showed a positive relation with muscle mass and a negative relation with body mass index and orthodontic treatment need.

007 Validation of an erosion cycling model to estimate the pH dose-response effect on enamel initial erosion

ROMÃO, D.A.*; TABCHOURY, C.P.M.; HARA A.T.; VELO, M.M.C.A; TENUTA, L.M.A.; CURY, J.A.

Dental erosion occurs under alternations of demineralization (exposure to acid) and remineralization (exposure to saliva) events. However, few in vitro models include this dynamic assessment of erosion and they have not been validated. **Aim:** To validate an erosive cycling model, evaluating the dose-response effect for different pH values. **Methods:** The erosive cycling model lasted 5 days and bovine enamel blocks (n= 12/group), selected according to surface hardness, were immersed in human saliva for 1 h at 37°C in the beginning of each day. The blocks were treated 4 times daily for 1 min with citric acid solutions (2 mL/mm2) 47.6 mM pH 2.5; 3.5; 4.5; 5.5 and 7.0 and cacodylate buffer 47.6 mM pH 7.0 (control). Between erosive treatments and during the night, the blocks were immersed in artificial saliva at 37oC. Daily, at the end of the cycling and in the beginning of each day, the blocks were evaluated for surface hardness again to calculate the percentage of surface hardness loss (%SHL). Data were analyzed by ANOVA followed by Tukey test. **Results:** A gradual increase in the %SHL at the end of the cycling model was observed according to the days in most of the groups and in the 4th cycling day a significant difference among all groups was observed ($p<0.05$). The blocks treated with pH 2.5 solution showed the highest %SHL ($p<0.05$). **Conclusions:** The erosive cycling model proposed was validated for evaluation of early tooth enamel erosion and showed dose-response effect for different pH values.

008 Estimation of sexual dimorphism by means of dental measurements on cone-beam computed tomography

TÁVORA, D.M.*; GAMBA, T.O.; FERREIRA, L.M.; ALMEIDA, S.M.; HAITER-NETO, F.; GROPPO, F.C.

Aim: The aim of the present study was to evaluate sexual differentiation with dental measurements using cone beam computed tomography (CBCT). **Methods:** For this, 140 CBCT images derived from database of the Department of Oral Radiology at the Dentistry School of Piracicaba – UNICAMP were selected. The sample was divided into 70 images of the maxilla and mandible of male patients and 70 images of the maxilla and mandible of female patients. Using CBCT axial slice and with CS 3D software measuring tool, three calibrated observers obtained dental dimensions (mesiodistal and buccolingual) of the lateral incisor (LI), second premolar (SPM) and second molar (SM), the upper right and lower left. **Results:** The t-test revealed a statistically significant difference between the genders, with regard to the mesiodistal dimension of maxillary (SM) right side and mandibular (SPM and SM) left side ($p<0.05$); as well as in the buccolingual dimension to the maxillary (SM) right side and mandibular (LI and SM) left side ($p<0.05$). **Conclusions:** We concluded that dental dimensions of the male patients were significantly higher than those of females.

009 Mesiodistal angulation of permanent teeth in children with mixed dentition evaluated through panoramic radiographs

MOREIRA D.D.*; RAMIREZ-SOTELO L.R.; ROQUE-TORRES G.D.; VESPASIANO A.I.; ALMEIDA-BOSCOLO S.M.

Aim: At the end of orthodontic treatment, one of the objectives to be achieved is the proper mesiodistal inclination of the roots, which should be as close to the slope found in a normal occlusion, as this ensures stability for treatment due to the fact that occlusal forces are distributed correctly. Assessing the slope of the roots can be made by radiographic images, and therefore the aim of this study was to compare the mesiodistal axial inclinations of the teeth of the maxilla and mandible in relation to the infraorbital, occlusal and mentuals foramen plans during the mixed dentition in patients not treated orthodontically. **Methods:** The sample consisted of panoramic radiographs of 100 individuals, 50 males and 50 females aged 7-16 years. The images were evaluated using the software Radioimp by 3 evaluators, where determined the three reference planes (infraorbital, occlusal and mental foramen), and according to these plans, were measured angulation of permanent teeth. **Results/Conclusions:** The data were subjected to statistical analysis. According to the results, it was concluded that in most patients there were changes in the mesiodistal angulation in relation to the three reference planes.

010 Intra-osseous B-cell Lymphoma mimicking a periapical lesion in mandible

PEREIRA, D.L.*; SANTOS-SILVA A.R.; ALMEIDA, O.P.; VARGAS, P.A.; LOPES, M.A.

Extranodal lymphoma is a rare malignant neoplasm most commonly seen in gastrointestinal tract or lymphoid tissue of head and neck. It is characterized by T or B-cells and the majority of cases are diagnosed in people over 60 years of age. Intra-osseous manifestation is very uncommon and usually can mimic an inflammatory dental disease. A 48-year-old man was referred to the Orocentro-FOP-UNICAMP complaining of lower lip numbness and thermal sensitivity in lower posterior teeth for five months. Patient reported that canine, first and second premolar were previously endodontic treated in another service. On intraoral examination, a slight swelling recovery by normal mucosa on vestibular region of these teeth was observed. Panoramic radiography showed irregular radiolucent area in the periapical region of these teeth. Computed tomography displayed cortical bone and teeth root resorption. Incisional biopsy was performed in the affected area and histopathological analysis showed dense infiltrate of lymphocytic cells, which were characterized by immunohistochemistry as B-cells, allowing the diagnosis of high grade B-cell lymphoma. The patient is under chemotherapy and reports improvement of lower lip numbness. Although intra-osseous B-cell lymphomas are extremely rare, it must be considered as differential diagnosis in cases of persistent symptoms and unexplained numbness to avoid misdiagnosis and treatment delay.

011 10-MDP effect on the bond strength of experimental etch-and-rinse adhesives

DRESSANO, D.*; PALIALOL, A.R.M.; CATELAN, A.; MARCHI, G.M.; LIMA, A.F.

Aim: The aim of the study was to evaluate the influence of 10-phosphoric acid metacriloiloxidecametileno (10-MDP) on the bond strength to dentin of experimental etch-and-rinse adhesives. **Methods:** For this, experimental adhesives were prepared with different concentrations of 10-MDP (0%, 5%, 10% and 15%). The system Adper Single Bond 2 was used as commercial reference. Freshly extracted human third molars were sectioned perpendicular to the long axis of the tooth for obtaining a flat and smooth dentin surface. The dentin was conditioned by 15s with 37% phosphoric acid, washed and thoroughly dried using absorbent paper. The adhesive was applied on a layer and cured for 20s, and after a block of 10x6mm was made using a nanoparticle composite. After 24 hours of restoration, sticks with 1mm were made using a metallographic cutter precision, and then the microtensile test was performed. The results were analyzed by one-way ANOVA with a 5% of significance level. **Results:** The bond strength of adhesives tested was similar, regardless of the concentration of functional monomer evaluated. **Conclusions:** It can be concluded that the 10-MDP, at the concentrations evaluated, did not influence on the bond strength to dentin of experimental etch-and-rinse adhesives.

012 Similarities in the condylar morphology in patients with skeletal Class III and Condylar Hiperplasia

GOULART, D.R.*; MUÑOZ, P.; FARIÑA, R.; OLATE, S.; MORAES, M.

Aim: To compare the TMJ morphology of patients with unilateral condylar hyperplasia (CH) and with patients with Class III skeletal relationship using Cone-Beam Computed Tomography (CBCT). **Methods:** A retrospective study was conducted with CBCT of patients with facial asymmetry assisted in the Oral and Maxillofacial division of Universidad de la Frontera. The study selected 15 patients with CH and 15 patients with Class III skeletal relationship. Linear measurements of the condylar processes were obtained in a scale 1:1 in the software Ez3D Viewer Plus (Vatech, Yongin, Korea). The patients with CH presented statistical differences between the hyperplasic and health condyle regarding: anteroposterior and mediolateral diameter, condylar neck legh, ramus height and deep of mandibular condylar fossa (pared t test, $p<0.05$). **Results:** The patients with Class III skeletal relationship do not showed differences between right and left side, the morphology of theirs condyles was similar with hyperplasic condyles and presented statistical difference when compared with normal condyles (One Way Anova, $p<0.05$). **Conclusions:** The morphology of condyles could be related with development of Class III skeletal relationship, and also the findings of this study are one insight of the possibility of some class III patients presented CH bilaterally.

013 Photoelastic analysis on different protocols rehabilitation using dental implants in atrophic edentulous maxilla

SIGUA-RODRIGUEZ, E.A.*, de MORAES, P.H.; LANATA-FLORES, A.; SANTOS, Z.T.; de ALBERGARIA-BARBOSA, J.R.

Aim: With the advancement of implantology, atrophic edentulous jaws that previously were indications of bone grafts to enable rehabilitation with dental implants, it is possible to circumvent most of these clinical situations without the need for bone grafts using techniques such as the zygomatic implants. However, for the maintenance of these treatments, knowledge of the biomechanical behavior of these treatment modalities becomes essential. Given the above, this research presents three biomechanical in vitro studies. The aim of this study was to analyze the mechanical stresses around the implants and surrounding bone by photoelastic analysis simulating combinations of three rehabilitations with zygomatic implants. **Methods:** Occlusal loads in first molar region were simulated, and the stress distribution on the implants and surrounding bone were examined. The load distribution was observed predominantly in the body and frontal process of zygomatic bone for both models analyzed. **Results:** The stress distribution analyzed by photoelastic analysis concentrated on the body and frontal process of zygomatic bone. Model 1 (2 + 2 zygomatic implants conventional implants), higher concentrations were found around the implants and surrounding bone. **Conclusions:** Before the tests, rehabilitation with two zygomatic implants with conventional implants 4 (Model 2) are better mechanically.

014 General Oral Health Assessment Index – GOHAI

SOUZA, E.O.*; QUELUZ, D.P.

Aim: The objective of this study was to clarify what is the General Oral Health Assessment Index - GOHAI, how important is it and in what circumstances it should be used. **Methods:** The methodology used for the production of this work was to conduct a literature review of key articles related to the topic. The overall index for assessing oral health (General Oral Health Assessment Index) or simply GOHAI, was developed in the United States in 90 years and aims to study the interference of oral health related problems in the quality of life of older people. The GOHAI consists of a questionnaire with twelve questions that address and assess aspects related to three dimensions: Physical / Functional, Psychosocial / Psychological and Pain / Discomfort. The questions have three possible responses: "always" with weight equal to one (1), "sometimes" with weight equal to 2 (two) and "never" with weight equal to three (3). **Results:** The total sum of these weights shows the individual's perception of their oral conditions and the higher the value, the better, otherwise the lower the oral condition is expected individuals with bad oral conditions. **Conclusions:** The conclusions obtained from this work were that the questionnaire GOHAI became a complementary method to any researcher who wants to know how the symptoms of oral diseases interfere with the daily routine, quality of life, a certain group of people.

015 Development of a questionnaire to evaluate the infection control measures in Dental Radiology

COSTA, E.D.*; PINELLI, C.; TAGLIAFERRO, E.P.S.; AMBROSANO, G.M.B.

Radiology is a dental specialty in which the risk of cross contamination may occur mainly during the intraoral radiographic exam, particularly by contact with saliva and/or blood, or when the professional manipulates x-ray equipment with contaminated hands. Thus, infection control in Radiology is an important component in patient care. Therefore, with a view to preventing cross transmission of infectious contagious diseases, standard precautions must be used. **Aim:** To develop a questionnaire as a research instrument to verify adhesion to the guidelines proposed for successful infection control in Dental Radiology. **Methods:** 17 multiple-choice questions were prepared on the topics of hand hygiene, use of protective barriers, frequency of disinfecting surfaces and type of disinfectant used for cleaning/disinfection. As this concerns development of a new research instrument, the reliability and stability of the results were evaluated. At two different time intervals, 115 students from the 3rd and 5th series from 2 publics and one private university in the State of São Paulo participated in the study in 2013. **Results:** These indicated satisfactory to excellent reliability in the test and retest for the CCI (0.100≥ICC≥0.722); from good to excellent for the nominal variables obtained in Kappa statistics (0.662≥Kappa≥0.913), and good internal consistency (alfa de Cronbach=0.82). **Conclusions:** The proposed research instrument was shown to be adequate for measuring adhesion to the infection control protocols, favoring the construction of safer health practices in Dental Radiology.

016 Infection control in digital intraoral radiology

COSTA, E.D.*; ARGENTO, R.; LOPES, L.J.; PINELLI, C.; AMBROSANO, G.M.B.; OLIVEIRA, M.L.

Aim: The growing accessibility to digital radiographic imaging systems has increased their use in private clinics and dental schools in Brazil. Currently, there are two different types of digital receptors: sensor and phosphor plates. Unlike intraoral radiographic analog film, digital receptors are reusable, representing a potential source of cross-contamination. The aim of this study was to investigate precautions and recommendations on infection control in the use of intraoral digital receptors. **Methods/Results:** Extensive literature review was performed using the PubMed database and having as keywords "digital radiography and contamination." Ten scientific papers were found with publication year ranging between 1999 and 2013. They underscore the importance of using plastic barrier for the two types of receptors, due to the fact that they are not sterilizable. Sensors are connected to a computer by a cable and allow desinfection with alcohol in case of perforation of the plastic barrier. Phosphor plates are sensitive to disinfecting solutions and makes use of an additional scanner, which represents increased need for care in infection control. It was also found recommendations regarding the use of plastic barriers on surfaces and equipment associated with digital radiographic imaging systems such as the monitor, CPU, keyboard and mouse. Alternatively, these additional barriers can be replaced by using over-gloves. **Conclusions:** In conclusion, the use of effective protective barriers was strongly indicated, but infection control in digital intraoral radiology still requires close attention.

017 Hyoid bone position comparing the lateral radiographs with CBCT

COSTA, E.D.*; BRASIL, D.M.; ROQUE-TORRES, G.D.; ALEMIDA, S.M.; BÓSCOLO, F.N.

Aim: To assess the position of the hyoid bone by hyoid triangle comparing the lateral radiographs (TNL), multiplanar reconstruction (MPR) and 3D images from the cone beam computed tomography (CBCT). **Methods:** A sample of 110 images from CBCT and lateral radiographs from the same patients were used. Two calibrated observers evaluated these three kind of images in which the hyoid triangle were assess by cephalometric measurements. **Results:** To observe the correlation between the images was performed the intraclass correlation coefficient, which showed a satisfactory reproducibility when they compared the TNL with the two kind of images from the CBCT for variables: based cervical skull, cervical skull inclination and PH angle. This reproducibility is also observed when comparing the images of TNL with MPR in the case of the variable H-H`, likewise when comparing the two imaging modalities of CBCT in the PH angle. Moreover, we observed excellent reproducibility when compared images of the TNL with the two kinds of CBCT and between the two kinds of CBCT for RGN-C3, C3-H, H-RGN, and AA-PNS. There was also excellent reproducibility when compared images of the TNL with 3D images in HH` variable, as well as when comparing the two kind of images from the CBCT in variables based cervical skull, cervical skull inclination and HH`. **Conclusions:** It was concluded that there is a good reproducibility of the relationship between the structures that determine the position of the hyoid bone when assessed through derived from CBCT images and TNL.

018 Long-term clinical evaluation of the stability and stainability of acrylic resin denture teeth

OGAWA, E.S.*; BELINE, T.; MATOS, A.O.; CONSANI, R.X.; MESQUITA, M.F.; ASSUNÇÃO, W.G.; BARÃO, V.A.R.

Aim: To evaluate the long-term clinical stability and stainability of acrylic resin denture teeth in complete denture wearers. **Methods:** 50 patients rehabilitated with complete dentures (2008-2013) were selected. The demographic data and the clinical characteristics of patients were recorded. Color change (deltaE) was evaluated by spectrophotometry. Patients were asked whether they had noticed any changes in the coloring of the teeth in their dentures. The hierarchical clustering analysis was used to identify groups formed from variables related to demographic questions and color analysis. Two-way ANOVA among the color cluster groups was performed and the Tukey-Kramer test was used as a post-hoc test. A chi-square test and Fisher exact test were used to identify the association between the study variables and color changes in the patients' responses. **Results:** 4 clusters groups were identified in the clustering analysis. The deltaE was statistically significant on the interaction between dental third and cluster groups. Cluster groups 1 and 4 exhibited statistically higher deltaE values than cluster groups 2 and 3. Chromatic alterations was noted in the incisal third of the teeth in comparison with the cervical and medium thirds in the cluster groups 1 and 3. There was no relationship with the patients' personal opinions about color change. **Conclusions:** Although the acrylic resin denture teeth exhibited color instability and stains in vivo, the patients had no discernment to identify the color change. The cluster groups with higher color change values presented higher consumption of staining solutions.

019 Psychological profile of a patient gutted by trauma and rehabilitated with individualized ocular prosthetics

PRESOTTO A.G.C.*; EMÍDIO T.C.S.; BUZZA E.P.; BARBOSA C.M.R.; AZEVEDO M.B.; ZULIN E.L.V.

The concern of men with the correction of congenital or acquired defects of the face is notified since the dawn of humanity (Bulburian, 1973). The objective of this work is present a case that involves the rehabilitation with ocular prosthesis in a patient who lost his eye due to an accident at work, and the importance of this treatment for the reintegration of the individual to live in the society. During the interview, the patient reported that experienced depression after the loss of the eyeball and that this limited their social life, as the face and its structures acquire a importance in personal presentation both in social and professional context. The patient reported that he had no more desire to look in the mirror, and yet he had no motivation to take care of the affected region (requiring care in cleaning and lubrication). The change in the psychological profile of patients already in the test session of sculpture in wax prosthesis was remarkable, showing even more the importance of this structure to the individual. It is concluded that the rehabilitation treatment Prosthesis Maxillo-Facial not only returns a lost structure, but more than that, the reintegration of the patient's life.

020 Histomorphometric analysis of the microcurrent stimulation therapy in orthodontic tooth movement: study in Wistar rats

ZANIBONI, E.*; SPADARI, G.S.; SANTOS, G.M.T.; MENDONÇA, F.A.S.; ESQUISATTO, M.A.M.; VEDOVELLO, S.A.S.; VEDOVELLO FILHO, M.; SANTAMARIA, M.JR.

Aim: The objective of this study was to analyze tissue reactions resulting from tooth movement associated with application of microcurrent in Wistar rats. **Methods:** Twenty animals were divided into 2 groups (n = 10): Control (C) subjected to tooth movement; and microcurrent with tooth movement (MC) subjected to tooth movement and daily application of microcurrent (10μ;A/5min) using a transcutaneous electrical stimulator. The movement of the maxillary left first molar was performed using stainless steel spring attached to incisors 75g-force. The animals were euthanized at 3 and 7 days after initiation of the experimental procedure for removal of the corresponding periodontal tissue and tooth moved area. Samples were stained with hematoxylin and eosin technique, picrosirius-hematoxylin and toluidine blue for histologic and morphometric analyzes. **Results:** The number of fibroblasts in the tension region of the periodontal ligament of the middle buccal root was significantly higher in samples treated with MC at 3 and 7 days when compared with the samples of C group. The same occurred for the number of osteoclasts on the compression region of the periodontal ligament of the same root. The number of blood vessels was similar in all experimental groups, on the 3rd day, in tension region of the periodontal ligament. **Conclusions:** On the 7th day, the vessels numbers in MC group was significantly higher than C group. The tooth movement combined with application of microcurrent promoted bone remodeling in this experimental model.

021 Caries: causes, symptoms, treatment and prevention

BORTOLAZO, F.H.*; QUELUZ, D.P.

Aim: To present on caries: causes, symptoms, treatment and prevention. **Methods/Results:** Caries is a multifactorial disease, which affects 99% of the population reaches a profile of younger people, is caused by bacteria found in the oral environment. Cavities are tooth decay, cavities evidenced by, influenced by the lifestyle of the individual - what you eat and how to take care of teeth. The bacteria found in the mouth transform in acidic food debris, through a process of fermentation, which attack the mineralized tissues of the teeth, causing the cavities. The cavity can be enamel, which destroys only the coronal portion of the tooth; can be dentine, which reaches the dentin sensitivity causing the patient; and can be a pulp cavity, which is deeper and painful. The decay can be found only in the coronal portion, located on chewing surfaces or between the teeth; can also be found on the root (root portion), which attacks parts of the exposed tooth root. And can also be recurrent decay, where the decay occurs around the existing restorations and crowns. The treatment for the disease varies with the type of decay that the patient has. Treatment is essential because if left untreated, a cavity can destroy your tooth and reaches the pulp, sometimes causing the loss of element, hindering the quality of life of patients. **Conclusions:** It is important that people increasingly have adequate knowledge about oral health, because this way will endeavor to take care of your teeth to have a good general and oral health.

022 Evaluation of the bacterial reduction at teeth with chronic apical periodontitis

FABRETTI, F.L.*; RIBEIRO, M.B.; PELEGRINI, R.C.; ZAIA, A.A.; FERRAZ, C.C.R.; ALMEIDA, J.F.A.; GOMES, B.P.F.A.

Bacteria and their products are the major etiologic agents of pulpal and periapical pathology. The persistence of infection due to endodontic treatment and bacterial recontamination caused by coronal microleakage failure are factors related to failure of endodontic treatment. **Aim:** Evaluation the bacterial reduction of teeth with chronic apical periodontitis by culture method. Methods: 20 single-rooted teeth with chronic apical periodontitis were selected and microbiological samples collected with sterile paper cones that were placed in VMGA III. The collections were made before the chemo-mechanical preparation (CMP) (C1), after CMP (C2), after EDTA 17% (C3) and after intracanal medication (ICM) (C4). After vortexing, serial dilution was carried out to 10-4 in BHI broth and aliquots of 50μL in mother sample and dilutions were plated in BHI Agar + 5% sheep blood and incubated at 37oC for 24/48 hours. The colony forming units (CFU) were counted and monitored from. The results were tabulated and subjected to statistical analysis with a significance level of 5%. **Results:** The mean CFU/mL in the different stages of the endodontic retreatment were respectively 101 CFU/mL (C1), 3 CFU/mL (C2), 0.5 CFU/mL (C3) and 0.5 CFU/mL (C3). **Conclusions:** The CMP was effective ($p<0.05$) in reducing the infectious contents of the root canals of teeth with endodontic treatment failure and there were no statistical differences between the means of C3 and C4.

023 Mechanical trauma as a facilitator factor for the development of oral cancer - case reports

CALDERAN, F.C.*; MIZUNO, L.T.; MIZUNO, E.H.F.

The oral cancer represents a public health problem in Brazil and worldwide. Among malignant tumors of the oral cavity, the Squamous Cell Carcinoma (SCC) is the most frequent tumor, accounting for over 90% of cancers. The etiology of THIS oral cancer is multifactorial and tobacco and alcohol are the main risk factors for the development of this pathological condition. Currently, the chronic traumatic lesions of the oral mucosa has instigated researchers and clinicians to suspect chronic irritant as a promoter and / or facilitator in the development of carcinogenesis. The aim of this study is to report two cases of patients who had areas subjected to constant trauma and developed oral cancer. A 58 years old female was a smoker for 20 years and used dental prosthesis since she was 14 years old. A 52-year-old male with no history of tobacco or alcohol had tooth 46 with coronary cutting and edge fracture, causing constant trauma on the border of the tongue. In both cases, the region of constant trauma, the patients had ulcerated and painful injury. Histopathology indicate SCC in both cases. The chronic tissue injury caused in the oral mucosa may be a triggering factor and/or facilitator for the development of oral cancer, requiring thorough evaluation of the constant trauma and changes in the oral mucosa.

024 S.O.S. first molar project: experience report

SILVA, F.R.*; PADILHA, E.Z.; SCHWAB, C.B.; BRIZON, V.S.C.; SCHMIDT, C.R.; MICHALISZYN, M.S.

This paper describes the implementation of the first molar S.O.S. program in the rural town of Guarauninha, located in Palmeira/PR. Knowing the importance of the maintainer of the first permanent molars for the development of occlusion and consequently the overall health of children, this program aims to prevent premature loss of these teeth through an individualized service which is focused on prevention. Through actions focused on dental unit as applying fluoride varnish and sealants and collective actions as talks to parents and guardians and dynamics with the children, SOS first molar aims at improving the quality of life in the medium term in the community initially quoted.

025 Emdogain and mucograft in gingival recession: case report

DIAS, F.F.C.*; FRANÇA, I.L.; SANGIORGIO, J.P.M.; Sallum, E.A.; Casati, M.Z.

Gingival recession is a mucogingival alteration around teeth, it exposes the underlying cementum, often leading to hypersensitivity, biofilm retention, root caries, and esthetic loss. The root hypersensitivity and patient's esthetic demand constitute the main indication to gingival recession grafting. The etiologic factors of gingival recession in marginal tissue are: a) periodontal inflammation induced by plaque and b) trauma caused by brushing. Controlling these factors prior to corrective surgeries is critical for a successful treatment and relapse prevention. The subepithelial connective graft has shown a predictable way for root coverage. However, recent studies (Rotundo et al., 2012; Nevins et al., 2011; Cafesse et al., 2011) investigating the efficacy of collagen matrix (Geistlich Mucograft) as viable alternative to autogenous grafts, once it provides an augmented keratinized mucosa and good root coverage. The use of Mucograft associated with the enamel matrix derivative (Emdogain) may provite additional gain regarding the possibilities of periodontal regeneration, since Emdogain mimics the role of these proteins during cementogenesis and the periodontal tissues development (Caffesse, 2006; Hammarström, 1997; Heijl et al., 1997). On the exposed, the purpose of this case report is to present surgical steps of this technical and monitoring the case, demonstrating the clinical availability of the association.

026 Fine needle aspiration cytology in pleomorphic adenoma of the parotid gland: a case report

SOUTTO' MAYOR, F.M.*; SOUZA, T. B.; CORTEZZI, E.; ABRAHÃO, A.; AGOSTINI, M.; ROMAÑACH, M. J.

The neoplasms of the salivary glands account for 2% of head and neck tumors and the most common form is the pleomorphic adenoma (PA). About 80% of PAs arise in the parotid gland and they usually occurs as a slow growing painless mass. Microscopically, it shows a remarkable degree of morphological diversity, including epithelial and myoepithelial cells in an extracellular matrix of varying appearance. Malignant transformation of PA should be considered in the differential diagnosis, mainly in PA occurring in parotid gland. Surgical resection is the treatment of choice for PA and recurrence rates varies from 3% to 7%. Fine needle aspiration cytology (FNAC) is a noninvasive and reliable technique that has been widely used in the preoperative diagnosis of salivary gland tumors, showing high diagnostic accuracy. A 67-year-old male patient was referred for evaluation of a slow growing asymptomatic swelling of the right parotid region. Physical exam revealed a smooth, mobile and firm nodule in the superficial lobe of the parotid gland, measuring approximately 3 cm. Ultrasound exam showed a predominantly solid and nodular mixed lesion. FNAC was performed and the smears showed the characteristic cytological features of PA, a fibrillary extracellular matrix intermixed with epithelial and plasmocytoid myoepithelial cells. The patient was referred for surgical resection. The final diagnosis will be confirmed by the histological findings of the surgical specimen.

027 Socioeconomic and behavioral analysis of group of students entered in a Preventive and Educational Oral Health Program

SANTOS, F.R.F.*; ZEEBERG, C.; BATISTA, M.J.; SOUSA, M.L.R.

Aim: Caries is a complex-multifactorial oral disease. Diagnosis and prevention are of paramount importance in childhood. Our preventive program goal is to promote public-health- and lifestyle-changes, encouraging oral hygiene habits, in a sample of 109 schoolchildren, 07-12 years-old, in Piracicaba-SP. The study was approved by the Research Ethics Committee of FOP/UNICAMP (055/2013). **Methods:** Caregivers completed a questionnaire and children were examined for oral health risk-factors. Mean age of schoolchildren was 8.41 years, 54.1% were girls. As regards parents or guardians education, the majority had completed high school level (42.2%). Most families had an income of over five hundred dollars. Who holds house predominated father and mother together. **Results:** Among children, 63.3% had visited a dentist in the last year, with 43.1% of the sample using the public services. The majority of the sample (79.8%) stated that the mother was informed about the child's Oral Health; 79.8% of the children brush their teeth three or more times per day. A mean value of 0.80 (±1.12) teeth's superficies was found in early stage decay. Decayed, Missing and Filled Superficies (DMFS) showed a mean value of 2.03 (±6.08). **Conclusions:** Thus, it is necessary to implement a preventive oral health educational program for these children, with supervised brushing and fun activities, seeking active participation of parents/guardians for instruction of healthy oral habits.

028 Levels of microorganisms in the domain Archaea after periodontal therapy in subjects with chronic periodontitis

RAMIRO F.S.; LIRA, E.A.G.; FERES, M.; FIGUEIREDO, L.C.; SOARES, G.M.S.; FAVERI, M.

Aim: The aim of this study was to evaluate changes in the prevalence and levels of microorganisms in the domain Archaea present in the subgingival environment of chronic periodontitis subjects undergoing therapy scaling and root planing (SRP) alone or in combination with systemic antibiotics. **Methods:** Sixty subjects with chronic periodontitis were randomized into three treatment groups: control (n = 20):RAR; Test 1 (n = 20):RAR + metronidazole (400mg) 3x/day for 14 days (MTZ); Test 2 (n = 20):RAR + MTZ + amoxicillin (500mg) 3x/day for 14 days (AMX). Microbiological monitoring was performed at baseline and 6 months after the RAR. **Results:** All treatment groups significantly reduced the number of individuals colonized by Archaea at 180 days post- therapy (Archaea) .n conclusion , the use of MTZ and MTZ + AMX associated RAR provided greater reduction in colonization sites and levels of Archaea in sites with PD≥5mm compared to RAR alone. **Conclusions:** The profile of colonization of Archaea before periodontal therapy did not influence the clinical response in the treatment of subjects with chronic periodontitis.

029 Bond strength and interfacial micromorphology of multimode adhesive and resin cements to root-canal dentin

BERMEJO, G.N.*; ABUNA, G.; SINHORETI, M.A.C.; DE PAULA, A.B.

Aim: Assess the bond strength (BS) and interfacial ultramorphology (IU) of multimode adhesive and resin cements to root-canal dentin, on cervical and middle third after 24 hours. **Methods:** Forty bovine roots were prepared: crowns were removed, and standardized to 17mm of root's size. The radicular canals were prepared, been restored with glass fiber posts (Exacto 2; Angelus), they were cemented by the following groups: G1 RelyX-ARC (ARC)/Scotchbond multipurpose (SBM), G2 ARC/Single Bond Universal (SBU), G3 Rely U200/SBU and G4 RU2. After 24 hours the teeth were sectioned and identified by thirds (cervical and middle), getting 4 slabs (+1mm) for third, and subjected to push-out bond strength test, at 1 mm/min speed. The failure patterns were analyzed with Scanning Electronic Microscopy (SEM). Two roots for etch group were examined under SEM and confocal laser scanning microscope (CLSM). The BS data were analyzed with two way ANOVA and Tukey ($p<0.05$). **Results:** The G3 (14.33 + 3.01 MPa) showed the highest BS paired to G1 (12.79+3.06); the G4 (9.60 + 2.01) had the lowest BS paired to G2 (10.88 + 2.66), the groups G1 and G2 did not have difference between them. Radicular regions did not affect the BS, the most frequent failure pattern was adhesive between dentin and resin cement. **Conclusions:** The association of a self etch resin-based cement with a multimode adhesive could improve the BS, without the interference of radicular region. SEM and CLSM bonding interface analyses showed IU with few and short resin tags formation for the multimode adhesive.

030 Effectiveness of fluoride products on enamel remineralization after oral rinse: a study in situ

NUNES, G.P.*; DANELON, M.; SASSAKI, K.T.; DELBEM, A.C.B.

Aim: The aim of this study was to evaluate, in situ, the clinical importance of not allowing the patient to rinse the mouth after ATF in remineralization of caries using fluoride gel and foam neutral pH. **Methods:** Blocks of bovine teeth were selected through the surface hardness and divided into 5 experimental regimes: without fluoride gel; fluoride gel and foam with 30 minutes without washing; fluoride gel and foam washing the oral cavity after application topical fluoride (ATF). Nine volunteers wore palatal appliances with four blocks of enamel artificial dental caries during 3 days after ATF. Two blocks were removed for analysis of calcium fluoride (CaF_2) formed. In the two remaining blocks analysis of surface hardness, to calculate the percentage of surface microhardness recovery (%SMHR) and retained CaF_2 was performed after experimental. **Results:** The period fluoride regimens produced greater remineralization (%SMHR) compared to the group placebo ($p<0.05$). There was no difference in the ability of remineralization between experimental regimes using fluoride ($p>0.05$). The fluoride concentrations was similarly formed and retained regardless of the experimental scheme fluoride ($p>0.05$) in each test. **Conclusions:** It was concluded that oral rinse immediately after topical application did not reduce the ability of fluoride remineralization.

031 Effect of sodium trimetaphosphate in fluoride gel on remineralization: an in situ study

NUNES, G.P.*; DANELON, M.; TAKESHITA, E.M.; SASSAKI, K.T.; DELBEM, A.C.B.

Aim: To evaluate the ability of in situ gel low concentration of fluoride (F) supplemented with sodium trimetaphosphate (TMP) in promoting remineralization. **Methods:** Blocks of bovine enamel were selected by surface hardness (SH1), after demineralization, and divided into five experimental groups: gel without F and without TMP (Placebo); gel with 4500 µg F/g (4500); gel with 4500 µg F/g + 5%TMP (4500 5%TMP); gel with 9000 µg F/g (9000) and gel with 12300 µg F/g (Acid gel). Volunteers wore palatal appliances with four blocks of demineralized enamel, three days. Two blocks were removed for analysis CaF2, F, Ca and P in enamel. In the remaining blocks was determined surface hardness (SH2) and in longitudinal section (ΔKHN) and CaF2, F, Ca and P post-remineralization. The results were subjected to analysis of variance and Bonferroni test ($p < 0.05$). **Results:** Gels 4500 5%TMP and 9000 were similar ($p > 0.05$) and showed the highest values of SH2 when compared to others ($p < 0.05$). Observed lower values of ΔKHN in 4500 5%TMP and Acid gel when compared to other gels ($p < 0.05$). Higher concentration of CaF2 and F was observed and the Acid group gel, followed by groups 4500 5%TMP and 9000 ($p < 0.05$). The groups 4500 5%TMP and Acid gel showed higher Ca and P in enamel than other gels ($p < 0.05$). **Conclusions:** We concluded that supplementation of a low concentration gel with 5% TMP was able to promote the remineralization of enamel similar to an Acid gel.

032 Effect of adding sodium trimetaphosphate in conventional dentifrice on dental enamel demineralization

NUNES, G.P.*; CASTRO, L.P.; DANELON, M.; SOUZA, J.A.S.; DELBEM, A.C.B.; PERCINOTO, C.

Aim: The aim of this study was to evaluate in vitro the ability of conventional dentifrices (1100 ppm F) supplemented with different concentrations of sodium trimetaphosphate (TMP) in reducing bovine enamel demineralization. **Methods:** For this study, blocks of bovine enamel (4 mm x 4 mm, n = 84) were selected through surface hardness (SHi) and then divided into seven experimental groups (n = 12): Dentifrice without F and TMP (Placebo), Dentifrice with 1,100 ppm F (1100 ppm F) and Dentifrice with 1,100 ppm associated with concentrations: 1% TMP (1100 1%TMP), 3% TMP (1100 3%TMP), 4.5% TMP (1100 4.5%TMP) 6% TMP (1100 6% TMP) and 9% TMP (1100 9%TMP), which were submitted for seven days, five cycling pH, temperature 37°C, leaving the last two days remineralizing solution. Treatment was performed daily with 2mL/block of suspension dentifrices, two times a day. Were determined surface hardness end (SHf) and in longitudinal section for calculating the integrated loss of subsurface hardness (ΔKHN) and concentration of F present in the enamel. **Results:** The results of SHf showed that supplementation with TMP produces a maximum effect with 3% ($p < 0.001$). The 1100 3% TMP group had lower mineral loss in depth (ΔKHN) ($p <0.001$) and provided greater presence of F in enamel ($p < 0.001$). **Conclusions:** The addition of 3% TMP to a conventional dentifrice (1100 ppm F) showed greater efficacy in reducing bovine enamel demineralization.

033 Evaluation of coverage in oral health in 10 family health units of Piracicaba

ROJAS, G.C.*; FONSECA S.A.V.; PEREIRA, A.C.

Aim: This study seeks to evaluate the primary oral health care coverage of 10 Family Health Units (USF) of Piracicaba. **Methods:** A single descriptive study was performed using available data collected from the Outpatient Information System (SIA) of the Unified Health System (SUS), from february to september 2013. These secondary data were organized into four indicators: coverage of programmatic first dental visit, coverage of collective action supervised toothbrushing average individual basic dental procedures, extractions coefficient by individual basic dental procedures. Them were analyzed and compared with the parameters proposed by the Ministry of Health. **Results:** At the first indicator the USF Park Orlanda provides greater coverage (11.53%) which means that for every 100 inhabitants, approximately 12 receiving the first query, and the USF Boa Esperança I, has the lowest coverage (2.8%). Factor that may influence is the number of vacancies available for consultations, the organizational model adopted for the attention, the number of people enrolled in each USF. At the second indicator the USF Mario Dedini II presents more coverage (66.09%), means that 66 of every 100 people participate in this type of actions. The USF Tatuapé I, has the lowest coverage (2.25%). At the third indicator 7 USF managed coverage within the parameters: 0.5 to 2 procedures per inhabitant / year. And two USF (San Francisco and Boa Esperança I) have less coverage and are far from achieving these parameters. **Conclusions:** The fourth indicator shows all USF are characterized by develop more conservative and restorative procedures that mutilators.

034 Masticatory and salivary assessment in young adults in the city of Piracicaba-SP Brazil

BORGHI, G.N.*; CARVALHO, P.M.; GAVIAO, M.B.

Aim: The aim of this study was to investigate the possible association between masticatory function, flow, pH, and salivary composition in young adults. **Methods:** The sample consisted of 30 subjects aged 18-30 years of both genders. For chewing the following variables were evaluated: (1) masticatory performance - determined by individual ability to fragmentation of the material chewy sieving technique Optocal plus test and determining the median size of the chewed particles (X50); (2) self-perceived chewing ability, related to the individual's ability to grind food, quantified using the visual analogue scale (VAS) ranging from 0 to 10.Salivary flow was determined by collecting stimulated saliva (chewing of Parafilm) and not stimulated beyond the salivary pH. The concentrations of total protein, calcium, phosphate, and lipids were assessed by the colorimetric method. Data were analyzed using descriptive statistics, normality Komolgorov-Smirnov test, correlation tests (Pearson or Spearman), Student or Mann-Whitney tests "t" and multiple linear regression models with stepwise backward elimination, controlling to gender and age (alfa = 0.05). **Results:** The salivary variables were not significantly related to X50 ($p> 0.05$). There was a significant correlation between chewing ability and stimulated salivary flow and not stimulated. Biochemical analysis of saliva showed that the concentrations of total protein, phosphorus and triglycerides differed between samples stimulated and unstimulated saliva, but the concentration of calcium did not show their difference. **Conclusions:** It was concluded that in this study the masticatory performance was not dependent salivary variables, but the stimulated salivary flow positively influenced the self-perception of chewing ability..

035 Distribution of teneurins 1 and 2 during orofacial and tooth development in wistar rats

TESSARIN, G.W.L.*; DIAS, C.A.; GUIATIL, I.Z.; GONÇALVES, A.; ERVOLINO, E.; Da SILVA, K.R.T.; CASSATI, C.A.

Aim: Teneurins (TENs) represent transmembrane proteins that were discovered in the 90s in Drosophila Melanogaster. Further studies revealed that teneurins are conserved in vertebrates and are comprised of four members (TEN1-TEN4), mainly expressed in the central nervous system (CNS) during neurogenesis. However, a few studies in vertebrates and invertebrates showed discrete teneurin mRNA expression in the orofacial region, without revealing their detailed distribution and/or temporal expression. In order to evaluate a possible involvement of TENs in the orofacial region and tooth (molar teeth) development, the present study analyzed the immunoreactivity of TENs using immunohistochemical technique during embryonic (E15-E20) and postnatal (P0-P7) stages. **Methods:** For this, paraffin (5 µm) or frozen (25-30 µm) histologic sections of the orofacial region of Wistar rats were obtained and submitted to indirect immunoperoxidase or immunofluorescence. **Results:** Immunoreactivity to TEN1 and, mainly to TEN2 was noted in odontoblastic cells during the bell stage and crown formation. Meckel's cartilage of the mandibular process showed TEN1 and TEN2 immunoreactivity in chondrocytes and chondroblasts. **Conclusions:** The data showed that TENs exhibit temporal and restricted expressions in some cells involved in orofacial and tooth development.

036 Evaluation of the antibacterial activity of the Mentha spp. essential oil, pulegone and menthol purified compound

BONI, G.C.*; BUSATO, S.N.; MARIANO, P.L.S.; ANIBAL, P.C.; FOGLIO, M.A.; STIPP, R.N.; HOFLING, J.F.

Aim/Methods: The emergence of bacteria strains resistant to conventional antibiotics has increased the development of research in look for an alternative compounds with antimicrobial activity. The essential oil of Mentha spp, as well as its individual components, menthol and pulegone, have demonstrated the ability to inhibit growth of some microorganisms. Samples of essential oil of Mentha arvensis, Mentha aquatica, Mentha piperita, and their isolated compounds commercially purified as pulegone and menthol were tested for antibacterial activity by determining the minimum inhibitory concentration of oil at microdilution method, on bacterial species: Staphylococcus aureus, Salmonella sp, Escherichia coli, Pseudomonas aeruginosa, Streptococcus mutans, S. mitis, S. salivarius and S. sanguinis. **Results:** It was observed that the oil extracted from M. arvensis showed inhibitory activity against Salmonella and E. coli at a concentration of 4 mg/ml, and species of S. mutans, S. gordonii and S. mitis in a concentration of 2mg/ml. The extracted oil of M. piperita showed inhibitory activity against E. coli, S. mitis and S. mutans at a concentration of 4 mg/ml, while those extracted from M. aquatica showed no inhibitory activity against these bacteria. The compound pulegone, showed activity only against S. salivarius, in a concentration of 2 mg/ml and menthol showed no inhibitory activity against the bacteria tested. The oil of Mentha species tested show different inhibitory activities compared. **Conclusions:** The oil of the species tested show different antibacterial activity. Pulegone and menthol purified reveal lower or no antibacterial activity on the tested microorganisms.

037 Fronto-Orbital Fibrous Dysplasia Resection

BUENO, G.H.*; FERREIRA, S.; FAVERANI, L.P.; MENDONÇA, R.; SOUZA, F.R.; JUNIOR, I.R.G.

A girl of 11 years old presented to our maxillofacial service with progressive disturbance of visual acuity and diplopia associated with elevation of the left portion of the frontal bone with a history of one year of the injury. By computerized tomography was observed asymmetry with aspect bone appearance of frosted glass, characterizing a fibrous dysplasia (FD), a non-neoplastic disease of bone development hamartomatous wherein the fibrous tissue expands gradually replacing normal bone. The approach of choice was the removal of the affected portion of the frontal bone and decompression of the orbital cavity through surgery followed by cranio-orbital reconstruction with immediate titanium mesh using bone graft from the iliac crest and skullcap. Histopathological examination showed proliferation of fibrous osteoid formation consistent with a diagnosis of fibrous dysplasia. Adequate restoration of facial morphology after one year was observed clinically. His visual acuity in the left eye improved with resolution of diplopia. For both, it was concluded that for the case of FD in the left region of the frontal bone that showed progressive visual symptoms, surgical treatment was effective in preserving vision and esthetic restoration.

038 Tent pole: an option for rehabilitation in atrophic jaws

SOUZA, G.A.*; SILVA, B.N.; DE MEDEIROS, R.C.; SVERZUT, A.T.; ASPRINO, L.

The treatment of edentulous patients with implants is a technique already incorporated in dentistry. In patients with severe bone atrophy, rehabilitation becomes even more complicated. The dentures have become unstable and bone loss can be a challenge for rehabilitation with implants. Severely atrophic jaws may present little bone height in the anterior region, preventing rehabilitation with conventional implants. Although short implants are an available option, its employment in those conditions under large mechanical demand should be performed with caution. Besides this fact, in those cases bone fragility will always bring the question of a possible fracture during surgery or mandibular function. Bone grafting techniques have great clinical applicability, but the vertical gains are still limited. For the treatment of those type of cases was proposed the technique of 'Tent Pole'. The basic principle is to install implants in the anterior region of atrophic mandible, where part of the dental implants will remain above the bone crest limit. The intraosseous portion of the implant should be of such magnitude so as to permit stabilization. The surgery is performed by extra-oral access so the fixation will work exactly as beams supporting the mucoperiosteal flap like a tent. This space is then filled with bone graft. The technique allows bone reconstruction and implant placement in the same surgical time. The objective of this study is to report the technique described above by presenting clinical cases which will enable elucidation and also discuss important aspects as well as their difficulties, advantages and disadvantages.

039 Relationship between occlusal vertical dimention and position of the head and neck: Clinical relate with 24 months

CORRADINI, G.F.*; FIGUEIREDO, L.A.A.; MICELLI, A.L.P.; AGUILA, L.R.D.; FERNADES, J.P.S.; VALENGA, S.; SILVA, F.A.; SILVA, W.A.B.

Temporomandibular disorders (TMD) is a condition that affects the masticatory system and is aggravated by function, with it, regardless of local disease involving the teeth and mouth, your diagnosis should be made by appropriate criteria. Temporomandibular disorder is considered a syndrome because the diversity of symptoms associated with it, often making diagnosis is difficult because of the ramifications of the origin of pain and other symptoms and signs located in distant areas of the temporomandibular joint. One of the aspects little studied in TMD is its relationship to head posture, cervical spine and upper limb region. The objective in this work was to report by a clinical case, the remission of painful symptoms related to TMD and cervical region, and improves posture of the head and neck obtained with rehabilitative dental treatment, recovery of muscle tone, optimization of mandibular position and restitution of the maxillo-mandibular relationship on a male patient, which make use complete dentures, with a period of follow up of 24 months; treated on the Clinical Specialization Course in Dental Prosthesis, Faculty of Dentistry of Piracicaba - UNICAMP. The therapeutic approach was effective in resolving the reported case, confirming the scientific basis of the proposed diagnosis and technique.

040 Application of the "golden ratio" in the aesthetic crown lengthening: report of a conservative surgical technique

MANFREDI, G.G.P.*; SALMEREON, S.; BRONDINO, B.; ZANGRANDO, M.S.R.; DAMANTE, C.A.; REZENDE, M.L.R.

The clinical crown lengthening with aesthetic purpose can be accomplished through surgical technique of osteotomy with apically positioned flap. However, the standard procedure can result in lack of proportionality between width and height of the crowns, and persistence of interproximal "black triangles", conditions that lead to failure in achieving the primary objective of the surgery: obtaining aesthetics. A variation on the flap design for crown lengthening with osteotomy will be presented in this case report, in which the above cited undesired effects were eliminated. The proposed technique employs incisions that preserve the papillae and the interproximal bone and provides access only to the buccal bone plate for the osteotomy. This, in turn, is performed in order to provide width/height crown ratio of 70% to 80%. These dimensions are based on the concept of the "golden ratio" that exists in all the elements of nature. Therefore, the predictability of the results is increased, as well as the patient satisfaction. This case report address the crown lengthening of the four upper incisors of a 34-year-old male smoker individual, whose aesthetic was severely compromised by the atypical eruption of the cited dental elements and by inappropriate prosthetic crowns. The application of conservative technique presented resulted in predictable and stable recovery of aesthetics as evidenced by the 14 months control, concluding that this can be an advantageous tool for the surgical treatment of short clinical crowns.

041 Oral Health Impact Profile (OHIP)

MORAES, H.C.*; QUELUZ, D.P.

Aim: The aim of this work is through literature review, discuss Oral Health Impact Profile (OHIP), focusing on what this tool is for serving and how it works, bringing examples of their application in dentistry. **Methods/Results:** Among the various instruments developed to measure perceived needs, the questionnaire OHIP, created by Slade and Spencer (1994) is one of the most widely used in different cultures and socio-demographic profiles, with order to provide a comprehensive measurement of dysfunction, discomfort and disability reported by the individual himself, attributed to oral conditions. The goal is to provide OHIP information that supplements the clinical indicators of oral disease epidemiology, providing a profile of the impact of diseases in populations and the effectiveness of health services to reduce these impacts. This instrument was based on the model Locker (1988), where seven dimensions of oral impacts are defined: functional limitation (1, 2), pain (3, 4), psychological distress (5, 6) disability (7, 8), psychological disability (9, 10), social disability (11, 12), disadvantage (13, 14); which are answered: 0 - never, 1 - rarely, 2 - sometimes, 3 - often 4 - always. **Conclusions:** As a conclusion, we can state that the OHIP-14, being a more compact form, is a very important tool for dentistry and other health areas, being used in a complementary manner, can bring improvements in the quality of life of individuals.

042 Bioavailability of fluoride in plasma and saliva after the ingestion of water or food prepared with fluoridated water

PANTAROTO, H.N.*; FALCÃO, A.; TENUTA, L.M.A.; CURY, J.A.

Aim: Although there are a consensus that the effect of fluoridated water on caries control is local and not systemic, the relative importance of drinking fluoridated water or food prepared with it to increase the saliva fluoride concentration is unknown, and was assessed in the present study. **Methods:** In an in vivo (n=20), crossed and doubled blind study, conducted in 4 phases, volunteers drank non fluoride water (NFW) (<0.01 µg F/ml), fluoridated water (FW) (1 µg F/ml) or a meal prepared with NFW or FW. The dose of fluoride ingested was 0.8 µg F/kg of body weight, both for water and for the meal prepared with NAF (corresponding of the residual fluoride present in food), and 12 µg F/Kg of body weight for the groups using FW. Immediately before and up to 180 min after ingestion, micro samples of blood and saliva were collect to evaluate the fluoride concentration. Fluoride bioavailability was estimated using the area under curve of the blood plasma and saliva fluoride concentrations as a function of time. **Results:** The highest fluoride bioavailability was observed after the ingestion of water and meal prepared with FW, when compared with the control groups, without difference between both forms to use. In the FW groups, higher fluoride levels were maintained in saliva for up to 2 hours, when compared to the baseline. **Conclusions:** Not only the ingestion of water, but the aliments prepared with AF, increase the F bioavailability in the oral cavity and can contribute to the anticaries benefit.

043 Estimation of chronological age through the third molars to validate the method Dermijian on CBCT images

FUGITA, I.H.*; VERNER, F.S.; GAMBA, T.O.; PEYNEAU, P.D.; ALMEIDA, S.M.; AMBROSANO, G.M.B.

Aim: The purpose of this study was to evaluate the chronological age of a person with the dental development stage and determine if there were differences between genders while estimating the chronological age in each stage of mineralization of third molars. **Methods:** 676 teeth were evaluated by Cone Beam Computed Tomography (CBCT) related to 89 examples from female and 80 examples from male, acquired on the I-Cat CB500, from the image file of Piracicaba Dental School - UNICAMP. The age range was 9 to 25 years. For the assessment of mineralization stages of third molars, Demirjian's method was used. Third molars were evaluated using ten stages ranging from the initial calcification of the crown to the complete closure of the root apex. Each exam was classified by three oral radiologists. The intraclass correlation coefficient (ICC) and the mode between the examiners were calculated and the data was analyzed with descriptive statistics (median, minimum and maximum value). Then the tests of Kruskal Wallis, Dunn and Mann Whitney were applied to compare the ages and the genders. **Results:** The ICC demonstrated an excellent reproducibility. There were statistically significant differences in stages of maturation between males and females aged between 17 and 25 years. Third molar in males, at this age, develops before women. **Conclusions:** Analyzing all the collected data from this study, it has been concluded there was sexual dimorphism in the mineralization of third molars classified by the method of Demirjian using CBCT, and that the adulthood may also be determined.

044 Electromyographic activity of masticatory muscle in individuals with dentofacial deformities: preliminary results

TEXEIRA, I.F.*; PRADO, D.G.A.; GAVIÃO, M.B.D.

Aim: To analyze electromyographic activity of masticatory muscles in individuals with dentofacial deformities (DFD) undergoing orthognathic surgery. **Methods:** Fifteen individuals with DFD participated and were evaluated in the previous phase of the orthognathic surgery and three months after. Surface electromyography of the masseter and temporal muscles was performed, considering amplitude and duration (act and cycle) as parameters. The individuals chewed a piece of rubber latex 2cm long, for 60 seconds in habitual manner. Results were recorded using Root Mean Squared in microvolts, and the percentage of the muscle activity and the duration in milliseconds (ms) were calculated. Shapiro Wilks test was performed to verify the normality of the data, and paired or unpaired t Student test or Mann Whitney were applied for comparisons, accordingly, with significance level of 5%. **Results:** The cycle time for the masseter and temporal muscles was similar before and after orthognathic surgery ($p>0.05$). Regarding the duration of the masticatory act, before surgery subjects had significantly higher values for the right masseter muscle compared with the postoperative values ($p=0.04$). In relation to muscle activity there was no significant difference between the values in the pre and post-operative phases. **Conclusions:** There difference found in electromyographic aspects regarding the duration of mastication after orthognathic surgery infers that the correction of dentofacial deformity provided an improvement in masticatory function. Research approved by the Ethics Committee on Human Research, FOP-UNICAMP, Protocol 074/2012.

045 Clinical and histopathological description of peri-implantitis in humans – a case report

SALMERON, S.; BALDERRAMA, I.F.*; OLIVEIRA, D.T.; DAMANTE, C.A.; SANT'ANA, A.C.P.; ZANGRANDO, M.S.R.; GREGHI, S.L.A.; REZENDE, M.L.R.

Peri-implantitis is an inflammatory and infectious disease that affects the soft tissues and the supporting tissues around dental implants. It is a multifactorial disease whose microbial biofilm is the main etiological agent. Environmental, behavioral and genetic factors can also influence the evolution of the disease. Histological section from animal studies have demonstrated an infectious and inflammatory model similar to that found in cases of chronic periodontitis, although it is known that the progression of peri-implantitis is more critical. Nevertheless, studies involving human biopsies of peri-implantitis are not very usual. The present case report relates a 52 years-old woman who presented for treatment complaining about mobility of the implant-supported prosthesis on implants placed at the position of teeth 36 and 37. The diagnosis of periimplantitis was made after clinical and radiographic examination. The initial treatment plan was decontamination of the implant surfaces with surgical access. On the moment of the surgery, the implant 36 presented loss of osseointegration and was immediately removed. The granulation tissue around that implant was sent to histopathological examination. The report confirmed the initial diagnosis of chronic inflammatory peri-implant disease, with the presence of mononuclear cell infiltration, hyalin Russell bodies, multiple blood vessels and hemorrhagic areas. The histopathological characterization of peri-implantitis confirmed its equivalence with the established lesion of Page & Schroeder for chronic periodontal disease. This case report contributed to the elucidation and characterization of histopathological evolution of peri-implantitis in humans.

046 Effect of pre-heating and light-curing unit on physical properties of a bulk fill composite

THEOBALDO, J.*; CATELAN, A.; LIMA, D.A.N.L.; MARCHI, G.M.; AGUIAR, F.H.B.

Aim: To evaluate the effect of composite pre-heating and polymerization mode on degree of conversion (DC), microhardness (KHN), plasticization (P), and depth of polymerization (DP) of a low-stress posterior bulk fill flowable base resin. **Methods:** Forty disc-shaped samples (n=5) of SureFil SDR flow (Dentsply Caulk) were carried out (5 mm diameter x 4 mm thickness) and randomly divided into 4 groups according to light-curing device [quartz-tungsten-halogen (QTH) or light-emitting diode device (LED)] and pre-heating temperature (23 or 54oC). Polymerization was performed at 2 mm distance of sample top surface using a QTH (Optilux 501, Kerr) or LED (Valo, Ultradent) curing units. Conversion rate was determined using a FT-IR spectrometer, microhardness was measured with Knoop indenter, P was evaluated by the percentage reduction of hardness after 24 h of ethanol storage, and DP was obtained by bottom/top ratio. Data were statistically analyzed by ANOVA and Tukey's test (alfa=0.05). **Results:** Independently of light-curing mode the highest pre-heating temperature increased the monomer conversion into polymer compared to room temperature on bottom surface ($p\leq0.05$). LED device showed higher DC compared to QTH unit ($p<0.001$). Overall, the conversion rate was higher on top surface than bottom ($p<0,001$). KHN, P, and DP were not affected by polymerization method and temperature ($p>0.05$); however, top surface showed higher KHN and P compared to bottom ($p=0.0307$ and $p<0.001$, respectively). **Conclusions:** The composite pre-heating showed to be an effective method to increase the polymerization rate of 4-mm increment bulk fill composite, and it could improve dental restoration longevity.

047 The articaine-2-hydroxypropyl-beta-cyclodextrin inclusion complex reduce cytotoxicity induced by plain articaine

BURGA-SÁNCHEZ, J.*; FERREIRA, L.E.N.; DOS SANTOS, C.P.; VOLPATO, M.C.; DE PAULA, E.; GROPPO, F.C.

Articaine (ATC) is one of the most used local anesthetics in dental practice. However, several reports of post operatory transient paresthesia, pain and swelling have been reported. **Aim:** the purpose of this study was to develop and evaluate the cytotoxicity of ATC in 2-hydroxypropyl-beta-cyclodextrin (HP-beta;-CD) inclusion complex, as well as in solution with epinephrine, on human keratinocyte cell (HaCaT) viability in vitro. **Methods:** The physical parameter analyzed was the maximal fluorescence emission in the absence and presence of ATC. Nuclear magnetic resonance (NMR) and job-plot experiments afforded data regarding inclusion complex stoichiometry and topology. Scanning electron microscopy (SEM) showed the formation and the morphology of the complex. HaCaT cells were exposed to ATC, combined or not with epinephrine, or in complex with HP-beta-CD up to 4 hours. Cell viability were assessed by MTT and Live/Dead® methods after exposure periods and compared to an untreated control group. Statistical analysis was performed by two-way ANOVA (Tukey test, $p>0.05$). **Results:** Job plot data revealed 10 h as equilibrium complex time and inclusion complex stoichiometry 1:1. Cytotoxicity of ATC depends on the concentration and exposure time, and when complexed with HP-beta-CD or in solution with epinephrine 1:200.000, toxicity tended to decline especially at low ATC concentrations. Likewise, adjuvants such as epinephrine, sodium metabisulfite and HP-beta-CD it selves showed biocompatibilidade. **Conclusions:** The ATC-HP-beta-CD inclusion complex decreased cytotoxicity of low concentration of plain ATC in HaCaT cell line, presenting it as a promising new anesthetic formulation.

048 Kaposi's sarcoma in HIV + patients

NEVES, P.R.*; ELIAS, R.A.; SILVA, A.R.S.; VARGAS, P.A.; LOPES, M.A.

A 32-year-old male patient was referred to Orocentro FOP-UNICAMP for evaluation. In his medical history the patient reported that four months ago underwent treatment for pancolitis and was subsequently diagnosed with HIV. Afterwards the diagnosis of HIV, treatment with antiretroviral was started. One month after the beginning of treatment, about 3 months ago, the patient noticed purplish-red lesions on the skin of the back and a swelling on the left side of his face. More recently purplish-red lesions appeared on the hard palate, tonsils and lower gingiva. On physical examination macules were observed on the skin of the back and on the left cheek and a swelling on the left parotid region. Intraorally it was noted a lesion on the right side of the hard palate measuring about 1.3x0.5cm, a swelling with necrotic surface on the lingual region of the gingiva on tooth 37, a reddish swelling on the right tonsil suggestive of Kaposi's sarcoma, and white areas on the lateral borders of the tongue bilaterally suggestive of hairy leukoplakia. An incisional biopsy of the purplish-red lesion of the hard palate was performed and the histopathological and immunohistochemical analyzes confirmed the diagnosis of Kaposi's sarcoma. Computed tomography of the parotid gland was requested and revealed a hypodense image suggestive of cystic lesion. Other exams showed changes in liver enzymes, negativity for hepatitis B and C and positivity for cytomegalovirus. Patient was informed about the diagnosis and referred for evaluation with the doctor responsible for treatment.

049 Influence of MI Paste™ and different adhesive systems on microtensile bond strength of demineralized dentin

SOUSA, J.P.*; BARBOSA-MARTINS, L.F.; ARAUJO, G.S.A.; CASTILHO, A.R.F.; PUPPIN-RONTANI, R.M.

Aim: To evaluate the effect of MI Paste™ and adhesive systems on the microtensile bond strength (μTBS) of demineralized dentin. **Methods:** Thirty-six human third permanent molars with mid-coronal portion of dentin exposed were randomized in 6 groups (n=6) according to factors studied (dentin treatment and adhesive system): G1.SD/SB–Sound Dentin/Adper™ Single Bond 2; G2.SD/CSE-Sound Dentin/Clearfil™ SE Bond; G3.DD/SB–Demineralized Dentin/Adper™ Single Bond 2; G4.DD/CSE-Demineralized Dentin/Clearfil™ SE Bond; G5.TD/SB-MI Paste™-Dentin treated with MI Paste™ for 1min/Adper™ Single Bond 2; and G6.TD/CSE-MI Paste™-Dentin treated with MI Paste™ for 1min/Clearfil™ SE Bond. Before dentin treatment and bond procedures it was applied acid gel on 24 molars producing a demineralized dentin. Adhesive/restorative procedure was performed constructing composite blocks with 4 mm height. They were stored in deionized water for 24 hours, sectioned in beams (1mm2) and submitted to μTBS test. SEM evaluated the types of fracture. μTBS data (MPa) were submitted to two-way ANOVA and Tukey tests ($p<0.05$). **Results:** It was found an interaction between the factors studied ($p<0.01$). TD/SB - MI Paste™(45.25) and TD/CSE-MI Paste™(48.10) presented the highest values of μTBS. SD/SB(40.8) showed higher values of μTBS than SD/CSE(32.9)($p<0.05$). No differences between DD/SB(26.4) and DD/CSE(25.4), and between TD/SB-MI Paste™(45.2) and TD/CSE-MI Paste™(48.1) were observed($p<0.05$). There was a predominance of adhesive, cohesive/composite and cohesive/dentin failures in DD/SB and DD/CSE; TD/SB-MI Paste™, DH/SB and DH/CSE; and TD/CSE-MI Paste™, respectively. **Conclusions:** The treated dentin with MI Paste™ showed to be the most favorable alternative to adhesive restorations in a short term, with substrate/adhesive dependence.

050 Occurrence of permanent teeth avulsion in an oraldental trauma center: A 12 years retrospective study

DINIZ-REBOUÇAS, P.*; MACEDO-RODRIGUES, L.W.; KANTOVITZ, K.R.; GONDIM, J.O.; MOREIRA-NETO, J.J.S.

Aim: To investigate cases of avulsion of permanent teeth among patients treated in 12 years of the Oraldental Trauma Center (CENTRAU) of the School of Dentistry from Faculty of Pharmacy, Dentistry and Nursing of Federal University of Ceara. **Methods:** A retrospective study characterized by direct observation of dental records from a spontaneous demand sample of dental trauma victims who presented to CENTRAU during the period from May 2001 to May 2013 was performed to analyze the gender and age of those patients, frequency of avulsion and dental reimplantation of each element and the causes of avulsion. The data extracted were submitted to a descriptive statical analysis (%). **Results:** 66 patients (06-30 years) victims of avulsion were reported, with 88 avulsed permanent teeth, being males the most affected (77%). The most frequently affected teeth were the maxillary central incisors (65.9%). Among the 88 avulsed teeth, 59 (67.04%) were reimplanted. Only in 9 (15.5%) cases, reimplantation was immediately (within 10 minutes). In 26 (39.4%) cases, the cause of avulsion was falling to the ground. **Conclusions:** Cases of tooth avulsion corresponded a low occurrence to the total number of occurrences of at CENTRAU.

051 Decoronation as an alternative procedure for dental ankyloses after dental reimplantation due to trauma: case report

DINIZ-REBOUÇAS, P.*; MACEDO-RODRIGUES, L.W.; KANTOVITZ, K.R.; GONDIM, J.O.; MOREIRA-NETO, J.J.S.

Dental ankylosis occurs by fusion of the root surface with the alveolar bone due to necrosis of the periodontal ligament. Local trauma, periapical infection, endocrine and metabolic disorders, excessive masticatory effort, poor eruptive force of the permanent successor and genetic alterations are some factors that can lead to ankylosis. Although there is not a known treatment for dentoalveolar ankylosis, there are alternative procedures, such as keeping the ankylosed tooth or its root, extraction followed by orthodontic closure, autotransplantation, implant, dento-osseous unit osteotomy or decoronation. The decoronation is a procedure which the crown of the ankylosed tooth is surgically removed below the cemento-enamel junction and the root is buried. After the procedure, a aesthetic maintainer of space is installed to prevent the space loss until the opportunity to provide a definitive rehabilitative treatment. Our aim is to report the case of patient LSM, female, 8 years-old, who came to the Oraldental Trauma Center of Federal University of Ceará after colliding against a wall. Avulsion of the dental element 21 occured and the tooth was stored in milk. The reimplantation occurred one hour after the injury. The treatment performed was decoronation and installation of a aesthetic and functional space maintainer. This case report presents a clinical follow-up of 6 months and 3 years of radiografic follow-up.

052 Evaluation of radioprotective and reparative effects of compounds of Aloe Vera, Zinc / Copper and Yerba Mate

QUEIROZ, P.M.*; NEJAIM, Y.; SILVA, A.I.V.; VASCONCELOS, T.V.; FREITAS, D.Q.; ALMEIDA, S.M.; BÓSCOLO, F.N.

Aim: Due to the large amount of natural ionizing radiation that humans are often submitted and with the increased use of artificial radiation sources in radiotherapy, looking increasingly to find natural substances that reduce the deleterious effects of ionizing radiation on the organism. Studies with substances such as Aloe vera, zinc/copper and yerba mate promise actions bactericides, antioxidants, in addition to cellular protection and improves the immune system. The present study aimed to evaluate the radioprotective and reparative effect of compounds Aloe vera-based, zinc/copper and yerba mate in irradiated rats through the quantification of the salivary flow. **Methods:** 150 Wistar rats were divided into 15 groups. The substances were administered, by oral route, before or after a single session of radiotherapy 15 Gy. At the end of 27 days was held sialometry with weighing the salivary flow of animals in each study group. **Results:** after tabulating the data, the statistical analysis of ANOVA, with a significance level of 5where the observed radioprotective and repairing cellular effect, with protection of salivary function in groups Aloe Vera; radioprotective in Aloe vera group associated with the zinc / copper and radioprotective in the group where yerba mate administered after radiation. **Conclusions:** the based compounds from Aloe vera and yerba mate have proven effective as radio-protective and reparative cell should be promptly used as assistants in radiotherapy, since they reduce the deleterious effects of ionizing radiation.

053 Detection of caries lesions using different MicroCT scan modes (180°/360°)

QUEIROZ, P.M.*; ROVARIS, K.; FERREIRA, L.M.; SOUSA, T.O.; PERONI, L.V.; FREITAS, D.Q.; HAITER-NETO, F.

Aim: the aim of this study was to evaluate the influence of microtomography (MicroCT) scan mode in detection of caries lesions. **Methods:** crowns of 122 teeth were scanned with Skyscan 1174 (Bruker, Kontich, Belgium) using the full scan mode (360°). Reconstruction of 900 basis images was performed using NRecon Software (Bruker, Kontich, Belgium) for the full mode and 450 basis images were used to reconstruct the half scan mode (180°). Three observers analysed the reconstructed images concerning the presence and localization of proximal caries lesions (244 surfaces). For validating the presence of caries, histological examination was conducted. **Results:** the intra-observer and inter-observer agreement for both methods ranged from moderate to excellent. There was agreement between the both methods studied and the gold standard for presence of the lesions ($p > 0.05$). However, both methods disagreed with the reference standard for localization ($p < 0.05$). The disagreement occurred in cases with lesions on the enamel mainly. The highest diagnostic values were found for 180° rotation. **Conclusions:** microtomography scan mode did not influence the detection of caries lesions; both 180º and 360º performed well for detect them but less well for evaluating their depth. Therefore, for caries detection through microtomography, 180º mode should be preferred than 360º.

054 Indication of surgical treatment of fractures of mandibular condyle

JARDIM, P.M. *; LAURIA, A.

The mandibular condyle fractures are commonly observed within mandibular fractures and require, in most cases, some form of treatment. There are basically two forms of treatment for condylar fractures: Conservative, which the fracture is treated closed without performing surgery, and open method, in which there is exposure of the fracture for reduction and fixation of bone segments. Each form of treatment has its own indications and contraindications, advantages and disadvantages, and the purpose of the study aims to expose, through review of literature and two case reports, the main indications for surgical treatment of condylar fractures. In the first clinical case, the patient had low subcondylar fracture due to vehicle accidents and surgery was performed with stable internal fixation after reduction. In the second clinical case, the patient developed symphyseal and bilateral condylar fractures due to vehicle accidents and underwent surgery through reduction and stable internal fixation of symphyseal and one condylar fracture. The choice of which method to apply is established, among other situations, the type of fracture, patient age and functional impairment as a result of the fracture, always bearing in mind that the main treatment assignment is not necessarily the anatomy restoration, but the mandibular function, thereby providing higher quality of life for the patients.

055 Modern and documented Brazilian osteological collection

ARAUJO, R.*; QUINTERO, Y.A.L.; MACHADO, M.P.S.; MATOSO, R.I.; LEAL, M.C.O.D.; FRANCESQUINI JÚNIOR, L.; DARUGE, E. ; DARUGE JÚNIOR, E.

Aim: This pilot project was designed to create a modern and documented osteological collection. **Methods:** unclaimed humans skeletons were donated from a municipal cemetery of a city in São Paulo state and removed using archeological techniques by a trained team formed by two exhumation technicians, two catalogers, a photographer and a leader. Data of sex, age, date of birth and death, ancestry, and cause of death were collected from death certificates of each skeleton that were provided by the cemetery. The bones were individually cleaned and packaged in identified urns under controlled temperature and humidity, cataloged with observance to pathological changes, traumas or fractures. All data were entered into a database (CSV) and descriptive statistics were performed using the software R Cran for Linux. **Results:** For the 200 skeletons, the first part of collection, The age distribution for females was non-normal with a mean of 59 years (sd = 22.88) and normal males with a mean of 53 years (sd = 18.50). The ancestry for males was 53.7% of caucasians, 30.1% of brunette skin (brown) and 14.7% of negroids and for females the distribution was 53.1% for caucasians, 25% of brunette skin and 21.9% of negroids. **Conclusions:** With the creation of this collection several researches in anthropology may be held and other validated for the Paulist and Brazilian population, serving as regional anthropological reference because the area lacks national data and tables, and foreign tables are old and do not represent a miscellany of Brazilian population.

056 The role of forensic dentistry in human identification of carbonized victim through three methods comparative

ARAUJO, R.*; MACIEL, D.R.; MIRANDA, G.E. ; RIBEIRO, T.M.C.; QUINTERO, Y.A.L.; COSTA, S.T.; FRANCESQUINI JÚNIOR, L.; DARUGE JÚNIOR, E.

This a case report of a human identification of a body fully carbonized, found inside the trunk of a burned car. It was suspected that victim was the owner of the carbonized vehicle. The post-mortem examination was conducted for orofacial region access to remove the carbonized soft tissue and then removal of the mandible and maxilla for execution of the forensic dentistry examination. Periapical radiographs were performed of the maxilla and mandible and also the cone beam computed tomography of both bones. The surgeon dentist of the owner of the car was found and the dental record of the alleged victim, with periapical radiographs and two plaster models was obtained. Comparative analysis of dental records with the post-mortem examination, it was possible to establish 27 coincident points, five not exclusive and none exclusionary. To compare the post-mortem radiographs with radiographic films present in the chart, was performed the superposition analysis in a software for image edit in the periapical radiographs of the region of the upper molars right. A transparency feature was applied in three different gradations and noted a positive coincidence format and apical end of the roots. For comparison the contours of the upper anterior teeth, standardized photographs were taken of jaw front and models in plaster. The photographic images were analyzed in image-editing software to get the outline of the dental elements, and was noted the great compatibility the contours of the teeth. It was possible to conclude the positive identification of the carbonized victim.

057 Implants in anterior maxilla: esthetic resolution

ARAÚJO, R.F.S.B.*; RIGOLIN, M.S.M.; BARROS, L.A.B.; BARROS, L.A.B.F.; MOLLO JÚNIOR, F.A.

Oral rehabilitation with implants in the anterior maxilla aims to restore function and aesthetic smile equilibrium that depends of periodontal and dental aspects. Thus, reconstructions aesthetic plan needs global knowledge regarding to the specialties interrelationship between prosthesis, Implant, and periodontics working together in search predictability in functional aesthetic and biological results. A 55 years-old man came to the clinic to correct his dental esthetic. The clinic and radiographic evaluation showed teeth 12 and 22 with loss of periodontal insertion and unfavorable endodontic treatment of teeth 21. A multidisciplinary planning was made: extraction of teeth 12, 11, 21 and 22 and immediate implant placement. Because the patient had high smile line and needed of a safe and stable provisional, we chose to perform these procedures in two stages. After 3 months, it was performed the implant transfer impression and the abutments and provisional were placed to define the peri-implant architecture and to create an ideal emergency profile. In a second moment, a new transfer impression was performed to copy the buccal gingival margin for the confection of metal-ceramics custom abutments and improve the aesthetics parameters and keep the cementing lines within the biological distances. A new impression was made to transfer the metal free copings and the lab finished the prosthesis with the ceramic stratification. The clinical success of the implants depends on an individualized planning for each clinical situation present such a way to satisfy the patient expectations providing better aesthetics and therefore improving the quality of life.

058 Restoration of vertical dimension in oral rehabilitation: a literature review

ARAÚJO, R.F.S.B.*; NISHI, R.N.; BOMBARDELLI, C.G.; CASTANHARO, S.M.; MOLLO JÚNIOR, F.A.

Tooth loss has decreased over time; however, collapses in the masticatory system still happen and, nowadays, the main cause is the pathological wear due to several factors. This severe wear generates a loss of vertical dimension of occlusion, with serious consequences in phonetics, aesthetics and muscles. To intervene in such cases, techniques to establish the vertical dimension of occlusion to be taken up are discussed. There are several techniques and studies show that many of them should be used in the same case. The greatest discussion on this issue is that very young patients are having this problem, which generates a need to use increasingly conservative treatments. The purpose of this report is to describe a general review of techniques and treatments to restore the vertical dimension of occlusion in these cases. The purpose of this report was to describe a general review of techniques and treatments to restore the vertical dimension of occlusion in these cases. It can be concluded that the treatment of restoration is feasible and can be performed with minimally invasive techniques, always taking into account a diagnosis and treatment plan performed well, given time to adapt these treatments.

059 Demineralization of the recipient bed to optimize the guided bone regeneration. Clinical report.

MICHEL, R.C.*; MANFREDI, G.; SALMERON, S.; DAMANTE, C.A.; ZANGRANDO, M.S.R.; REZENDE, M.L.R.

It was recently demonstrated that demineralization of the recipient bone bed promotes consolidation of "in block" autografts and promotes the differentiation of pre-osteoblasts in vitro, resulting in favorable bone quality and quantity for implant placement. This principle was transferred to the particulate grafts used in periodontics and guided bone regeneration (GBR). This case report describes the technique of GBR with demineralization of the receptor site of a nonsmoker 36-year-old male during the installation of an osseointegrated implant (Nobel Biocare AB®, Sweden) in the position of tooth 14. Extensive bone resorption was noticed at the buccal aspect that could produce aesthetic damage due to lack of tissue volume. Option for GBR was made with particulate xenogeneic bone graft (Bio-Oss, Geistlich®) associated with resorbable membrane (Gem Derm, Baumer®). Previously, the bone bed was demineralized with citric acid (pH 1) for 15 seconds and perforated to provide access to the contents of the medullary spaces to the grafting area. The membrane was glued covering the graft at the bed with cyanoacrylate. As the element 13 presented gingival recession, a subepithelial connective tissue graft was performed in the same surgical procedure. The flap was sutured and 14 months after, the second stage surgery for healing abutment placement was made. At this time excellent quality and amount of bone formation at the site was found. Clinical and radiographic control proved the success of the procedure, leading to the conclusion that the described technique can optimize ROG.

060 Mandibular body fracture: Pattern and treatment

SANTOS, Z.T.B.V.*; CORREIA-MEDEIROS, R.; PINTO, C.M.S.A.; OLATE, S.; ASPRINO L.

Aim: The aim of this research was to study of treatment of mandibular body fractures (MBF). **Methods:** a retrospective study was realized with subjects was present clinical and image diagnosis; were analyzed socio-demographic variables, etiology, sign and symptoms of fracture, type of treatment and complications. A statistical and descriptive analysis with Chi-square with statistical significance with $p<0.05$ was executed. **Results:** The average age was 34 year with 55 male patient; the more common etiology were physical violence and motorcycle accident. The 45.5% present only MBF; patients with multiple fractures show clinical relations between MBF and contra lateral mandibular angle fracture; 54 patients were treated with open reduction without statistical relations with symptoms ($p=0.244$) or displacement of fracture ($p=0.309$); the 54.2% of surgical cases present an extraoral approach, using the intraoral approach when the fracture present poor displacement ($p=0.0074$); the complications more common were suture dehiscence and infections of surgical site. **Conclusions:** We conclude that the initial choose of treatment was not related to variables analyzed; when exist a minor displacement of MBF can be indicated an intraoral approach for reduction and fixation technique.

061 Effect of sucrose and starch association on dentin demineralization, assessed by a biofilm model

ARAÚJO R.R.*; DEL BEL CURY, A.A.; SILVA, W.J.; SOUZA, S.E.; SAMPAIO, A.A.; CURY, J.A; TENUTA, L.M.

In modern dies, sucrose and starch are used simultaneously or interspersed and it is suggested that starch could increase the cariogenic potential of sucrose. **Aim:** To evaluate the effect of this association in controlled experimental conditions, a tri-species biofilm model containing bacteria directly or indirectly associated to the starch and/or sucrose metabolism (S. mutans, S. gordinii and A. naeslundii) was developed. In the present study, the effect of the association of sucrose and starch on the demineralization of root dentin, using a biofilm model previously standardized, was evaluated. **Methods:** Tri-species biofilms were grown on bovine root dentin slabs (7x4x1mm), which were exposed 8 times/day to the treatments. Test groups were: 1% starch; 1% starch + 10% sucrose and 10% sucrose, during 3 minutes for 4 days (96h). Before each treatment, the slabs were immersed in human saliva, which was also added to the culture medium. **Results:** dentin demineralization (assessed by loss in surface hardness) was higher in the groups containing sucrose, but no difference was observed between the starch+sucrose and sucrose only groups. Using confocal laser scanning microscopy, the three species composing the biofilm were observed. **Conclusions:** The results suggest that this biofilm model is adequate to test the cariogenicity of starch-containing food.

062 Resin composites used to reestablish the aesthetics of color changed vital tooth: a case report

DOMINGUES, R.M.*; PEREIRA, A.P.; YANIKIAN, C.R.F.; SUNDFELD-NETO, D.; MARTINS, L.R.M.

The use of resin composites has substantially grown in recent years due to their physicochemical improvement, bond ability to dental tissue, low cost and ease of use. Therefore, when properly indicated the resins may be used for direct veneers in irreversibly changed teeth. In this case report, a male patient, white and around 50 years old, sought the Restorative Dentistry Clinic of Piracicaba Dental School complaining of aesthetic dissatisfaction of the upper anterior teeth, restored after a trauma. The clinical and radiographic evaluation revealed that all teeth showed vital pulp and color changed composite restorations. Specifically the tooth 21 had a dental color change, but unsuccessful attempts of external bleaching and direct veneer were made. Since there was no possibility of internal bleaching, it was decided to replace the direct veneer in composite. The teeth 11 and 12 presented deficient class IV and III restorations, respectively. Different composite color layers were used to mimic the optical effects of the tooth. After the treatment completion, it was concluded that current restorative resins have good mechanical performance and can achieve good aesthetics results, with broad clinical application. Therefore, when well indicated, resin composite can be used for anterior rehabilitation with good predictability.

063 Time series analysis of dental procedures and this association with social vulnerability

MONTANINI, R. *; MENEGHIM, M.C.

The extramural stage aims to empower graduates to work in public health and develop a policy for oral health care for community. **Aim:** This study aims to describe the temporal pattern of rates of dental clinical procedures performed on stage and assess whether there is an association in the default rates of clinical procedures with the standard social vulnerability of the population served during the period between January 2004 and December 2012. **Methods:** This is an ecological study, adopting the group students from participating schools as units of observation. The source for obtaining the data are dental records. The analysis will be based clinical data rate restorations of permanent teeth (RP) and deciduous (RD) rate for permanent teeth extractions (EP) and deciduous (ED) therapy intensive fluoride (TF) and sealants (SE); from four schools in neighborhoods with different levels of social exclusion. The study will have a drawing of temporal, exploratory series, evaluating the performance of exchange procedures Clinical over time to the geographically defined population. **Results/Conclusions:** The expected result is used to predict disease trends as a function of Social vulnerability and evaluate the impact of intervention (health care service) in the study population. The data will be analyzed considering the level of significance of 5%. To assess the associations between the outcome variable and the independent variable logistic regression analysis will be used.

064 Case report: Planning and installation of dental implants on post auricular region of a patient with bilateral anotia

CARDOSO, R.*; SIGUA, E.; POZZER, L.; ALBERGARIA BARBOSA, J.R.

Microtia and anotia are conditions that involve the partial or complete absensce of the pinna, the outer projected portion of the ear, caused by congenital deformities, accidents or degenerative deseases. In this case report, the patient is a healthy 40 years old, male, leucoderma and presents bilateral anotia type IV microtia. The surgical treatment involved the installation of two osseointegrable implants on the post auricular region for posterior prosthetic rehabilitation. Preoperatory exams as radiography and tomography and a surgical guide were made previously to the surgical procedure, in aim to promote a safe and effective surgical environment, in addition to satisfactory rehabilitation conditions. The surgical procedure was realized under local anesthesia, followed by a vertical and linear incision on the post auricular region, detachment of the periosteum and the installation of two osseointegrable implants. In a second stage surgery, the implants were exposed and healing caps were screw onto the exposed portion of the dental implants, in aim to allow the surrounding tissues to heal and looking forward to the prosthetic treatment.

065 Incidence of ponticulus posticus in the posterior arch of the Atlas vertebra and it sexual dimorphism relationship

VARANDA, R.F.*; CLOSS, S.R.; FREIRE, A.R.; ROSSI, A.C.; DARUGE-JÚNIOR, E.; PRADO, F.B.

Aim: To assess the incidence of ponticulus posticus in the posterior arch of the Atlas vertebra of Brazilians and it sexual dimorphism relationship on lateral teleradiography. **Methods:** We evaluated 242 lateral teleradiographs distributed according to sex, of individuals of aged 18-51 years. The determination of presence of ponticulus posticus was performed by same examinator. Each radiograph was carefully inspected for the presence of a ponticulus posticus and whether it was complete or partial. Direct visual method of examination under adequate illumination was used. The analysis was performed twice, in distincts periods. The data were submitted to the Kruskal-Wallis test, with a significance level of 5%, in GraphPad Prism 6, Inc. software. **Results:** No influence of sex (Chi-square, p = 0.8354) in the presence of ponticulus posticus was verified, indicating that sex is not a factor of influence. **Conclusions:** Incidence of ponticulus posticus in Brazilian population is significant, however, the presence of this anatomical variation can not be related to sexual dimorphism.

066 Orbital apex syndrome associated with head and neck cancer: a report of two cases

MARKMAN, R. L.*; GOUVÊA, A. F.; BRANDÃO, T. B.; SANTOS-SILVA, A. R.; RIBEIRO, A. C. P.

Orbital apex syndrome (OAS) is a entity that damages the oculomotor nerve (III), trochlear nerve (IV), abducens nerve (VI), or ophthalmic branch of the trigeminal nerve (V) leading to optic nerve dysfunction. Clinically, it initially presents as optic neuropathy and ophthalmoplegia. Local invasion of the orbital apex from adjacent head and neck tumors can occur due to its anatomical proximity, and cases of this nature have been reported in the literature. Case report: two male patients were diagnosed with OAS while undergoing treatment for tongue (1) and nasopharynx (2) squamous cell carcinoma. Both patients presented with ptosis and diplopia which led to the diagnosis. Clinicopathological data, tomographic and magnetic resonance findings and follow-up information of the patients will be discussed. Early diagnosis is crucial for patients with OAS because it indicates poor prognosis. These two cases highlight the importance of multidisciplinary teams in cancer treatment.

067 Diagnosis suggestive of mucopolysaccharidosis in Dentistry: A case report

LUCATELI, R.L.*; AMARAL, L.F.A.; MARIANO, R.C.

The correct diagnosis is essential to establish the most adequate treatment. The diagnosis of rare conditions requires an integrated and complete investigation in order to identify correctly the disease and perform an effective treatment. This paper describes a case suggestive of mucopolysaccharidosis and the initial treatment of cystic lesions in oral cavity. A 13-years-old Brazilian boy complained of swelling in the cheek, which started 3 years ago. Radiographic analysis showed extent radiolucent lesions involving retained teeth that dislocated dental germs. The findings of clinical and radiographic examination associated with anamnesis led to suggest three hypothesis: Cleidocranial dysostosis, Gorlin-Goltz syndrome and mucopolysaccharidosis. The last was considered as the most probable condition due to medical history and physical/clinical characteristics. The local treatment was based in cystic decompression of the lesions to prevent pathologic fracture of the mandible. The study reinforces the difficult of diagnosis related to the complexity of the syndrome and the oral treatment to improve the quality of life of the patient.

068 The use of morphogenetic protein in Implantology – literature review

LUCATELI, R.L.*; CATROLIO, A.; MARIANO, R.C.

The development of bone graft materials has improved the options of treatment in rehabilitation therapy. Bone morphogenetic protein (BMPs) has been widely studied for regeneration of bone defects. BMPs are growth factors derived from bone matrix. These proteins induce mesenchymal cells to differentiate into osteoblast cells, which produce new bone. Some applications of BMPs in Implantology include extraction sites, alveolar ridge augmentation, and sinus floor augmentation. The bone morphogenetic proteins present some advantages as the absence of a second surgical site. The procedure is less traumatic and result in lower time for repair, which is a desirable property for the patients. Furthermore, the use of BMPs is not limited by the defect size. The proteins can be used in large defects without any restriction. However, BMPs have a high cost, which limits its use by the professionals. Several laboratorial and clinical studies have shown the success of the use of BMPs on bone formation. The aim of the present review was to analyze the studies regarding the use of BMPs in different procedures in Implantology. Studies in animals using BMPs with dental implants show the success of the therapy and posteriorly studies in humans demonstrate the possibility of bone formation in cases of defects. The BMPs are able to induce bone regeneration around dental implants. Furthermore, several clinical studies verified feasibility and safety when using BMPs in surgery procedures. Bone morphogenetic proteins can be considered a potential and safe alternative in bone regeneration in Implantology.

069 Influence of image filters in the diagnosis of root fractures in cone beam computed tomography

DALLEMOLE , R. R.*; FERREIRA, L. M.; VISCONTI, M. A.; NASCIMENTO, H. A. R; AMBROSANO, G. M. B; FREITAS, D. Q.

Aim: The aim of this study was to evaluate the influence of enhancement filters of cone beam computed tomography (CBCT) in the diagnosis of vertical root fractures in teeth with and without metal post. **Methods:** 40 single-rooted human teeth were decoronated and the canals were endodontically prepared. VRFs were induced using a universal testing machine in 20 teeth. The teeth were scanned with and without intracanal metal post using the i-CAT Vision (Imaging Sciences International, Hatfield, PA, USA) with the following parameters: 0.2 mm voxel; field of view 8x8 cm, acquisition time of 26.9 s. The images were evaluated individually by three observers who analyzed them with and without the following filters: S9, Smooth, Smooth 3X3Sharpen, Sharpen-mild and Sharpen 3X3. **Results:** The intra- and interobserver agreement ranged from poor to moderate. The area under the ROC curve and sensitivity showed no differences between images with and without CBCT filters ($p>0.05$). For accuracy, the Sharpen mild was superior from the Sharpen, but these did not differ from the others. For specificity, S9, Smooth and original images were superior from Sharpen. The condition without post differed from that with metal post in all images ($p<0.05$). **Conclusions:** the enhancement filters in CBCT images has little influence on the diagnosis of vertical root fractures in teeth with metal post.

070 Childhood hyperbilirubinemia affects the micromorphology of human dentin

NEVES-SILVA, R.*; ALVES, F.A.; TENÓRIO, M.D.H.; MACHADO, J.L.; DE GOES, M.F.; GIANNINI, M.; LOPES, M.A.; SANTOS-SILVA, A.R.

Aim: To analyze the clinical profile of patients with history of hyperbilirubinemia of childhood who developed green dental pigmentation and to further characterize macroscopic, microscopic, and ultrastructural features of green teeth. **Methods:** Macroscopic and radiographic analyses of 22 green teeth obtained from 8 patients were performed. The micromorphology of enamel, dentin, dentinoenamel junction and dental pulp as well as the density/mean diameter of dentin tubules and thickness of peritubular dentin were further evaluated by the combination of optical light microscopy, polarized light microscopy and scanning electron microscopy. **Results:** The mean age of patients was 10 years, with no gender predilection. Several different diseases affected the patients enrolled in this study. Among them, 4 (50%) were biliary atresia, 1 (12%) primary biliary cirrhosis, 1 (12%) hypoplasia of intrahepatic biliary tract, 1 (12%) familial cholestasis, and 1 (12%) liver cirrhosis. The radiographic analysis identified 14 (67%) specimens with enlarged pulp chamber and root canal. No changes were identified in enamel micromorphologic components, dentinoenamel junction or in the pulp. However, several changes were observed in the dentin, including the identification of dark lines parallel with dentin incremental lines and decreased mean density of the dentin tubules and thickness of peritubular dentin. **Conclusions:** Hyperbilirubinemia negatively affects the micromorphological features of the dentin in patients who developed green teeth.

071 Langerhans cell histiocytosis with oral involvement

NEVES-SILVA, R.*; SANTOS-SILVA, A.R.; VARGAS, P.A.; DE ALMEIDA, O.P.; LOPES, M.A.

Langerhans cell histiocytosis (LCH) is a rare disorder characterized by an abnormal proliferation of bone marrow-derived histiocytes. LCH has an incidence of one-two cases per million and it can produce focal or systemic manifestations. A 47-year-old man, who was in chemotherapic treatment for LCH, was referred to Orocentro-FOP-UNICAMP for evaluation of a lesion in the mandible identified in bone scintigraphy, which was diagnosed as of endodontic origin and patient was referred to endodontic treatment. Two years later, he presented lesions on left and right buccal mucosa, gingiva and hard palate. Incisional biopsy was performed and microscopically revealed Langerhans cells, which were positive for CD1a in immunohistochemical analysis confirming diagnosis of LCH. The patient was referred to his physician and treated with chemotherapy. He remained well for about 15 months when he presented again ulcerated lesion on lower and upper gingiva, hard palate and left and right buccal mucosa. Another biopsy was performed and the diagnosis of LCH was again established. The patient was referred to his physician for treatment, and remained well for about 9 years, when he presented a swelling on his right buccal mucosa causing facial asymmetry. Another biopsy was performed and microscopical and immunohistochemical analysis confirmed the diagnosis of LCH. The patient was referred once again to his physician and is currently under treatment. This case report shows the importance of a close follow-up to identify any eventually recurrence. Recognition of the clinical features of LCH is important to avoid misdiagnosis and to establish the correct treatment.

072 Prospective review of nine cases of Ludwig's Angina caused by odontogenic infections

MARCATO, R.A.*; MARTINS, T.H.; STABILE, G.A.V.

Aim: To evaluate the epidemiological profile and clinic evolution of the patients affected by odontogenic Ludwig's Angina who were attended at the Regional University Hospital of the North of Paraná (HURNP) by the Odontology Residency Program. **Methods:** 108 patients with odontogenic infection were evaluated by a 40 month prospective study, which 9 evolved to the Ludwig's Angina condition. Results: The men on the age of 40 were affected by the 3,5:1 proportion. All the patients were classified as immunocompetent and 66% of the cases had already received the initial cares in other institutions, since the first symptoms were reported averaged 5,1 days before the demand by the treatment. Algic complaint in face and dysphagia were common in all patients and 77% presented significative trismus. **Results:** As a service protocol, the combination of clindamycin and ceftriaxone was used as the initial empirical antibiotic therapy of these infections and was followed by a surgical drainage and immediate removal of the cause. The patients remained hospitalized for averaged 10,7 days after the surgery. Two patients died, although, due some conditions indirectly related to the angina, with no signs of infection on the maxillofacial or cervical area on the moment of the death. **Conclusions:** In front of the collected data and the clinic evolution of the patients, we observed that the presence of severe odontogenic infections on the population is still quite prevalent and the diagnosis must be quick and the treatment efficient to reduce the arising morbidity.

073 Risk factor of the dental caries in children attended by preventive programs: longitudinal study

MARCATO, R.A.*; PAIVA, M.F.; SILVA, C.P.; VISCAYA, K.; SCUDELLER, L.B.; PINTO, L.M.C.P.

Aim: The objective of this essay was to identify the risk factors of the dental caries on 10-years-old children related to a previous experience about the disease on the deciduous dentition. **Methods:** The study was conducted with children who had participated of any educational-preventive program while their 6 first years of life and who were evaluated by the 6 and 10 years old. The data collection was made by an oral examination able to evaluate the dental caries and by a form applied to the parents or guardians to conduct a later research of the associated factors. The results were compared with other data gathered by the age of six and ten. **Results:** Dental caries experiences by the age of 10 presented association with previous experience with the disease by the age of 6. Children with dental caries by the age of 6 presented 2,53 more risk to develop the disease by the age of 10. The presence of dental caries on the posterior teeth by the age of 6 represented 1,87 more risk to develop the disease on the first permanent molar teeth. The experience with dental caries was lower among the children who had periodical dental care by every 6 months after the end of the program. **Conclusions:** The conclusion is that the experience with dental caries by the age of 10 was associated to the history of dental caries by the age of 6, even on the population with low rates of the disease.

074 Periodontal diseases: etiology, symptoms, treatment and prevention

COELHO, S.R.G.*; QUELUZ, D.P.

This study reported on periodontal diseases: etiology, symptoms, treatment and prevention. It is an infectious inflammatory disease that affects the supporting tissues (gums, cementum, periodontal ligament and bone) of the teeth. The evolution of this process leads to tooth loss because the destruction by bacterial action, accumulation of calculus and inflammation of these structures cooperate in the formation of periodontal pockets, tooth mobility leading to a loss of tooth support. The most common – Gingivitis - can occur in any individual if there is sufficient accumulation of dental plaque on the bank and / or dent gingival level. Are characterized by redness of the marginal gingival swelling, and bleeding on probing. This disease has its most rapid development in diabetics, immunosuppressed patients and smokers. There are several indexes through which it is possible to evaluate the degree of periodontal disease. If left untreated, gingivitis can progress to periodontitis, chronic or aggressive may be. Chronic has less bone loss, and long-term, widespread and reaches a buccal region. The bone loss is more aggressive, it is more localized, faster, and has more plate. The etiology of periodontal and gingival disease is microbial, being worsened when oral hygiene is neglected. Treatment of periodontal diseases is summarized in the removal of the etiologic factor, with supra gingival sweeps (coronal portion) and sub gingival (root portion). It is extremely important that the patient is aware of his illness, and maintaining hygiene collaborate with dental floss and a good daily brushing, dental for preservation.

075 Digital resources: a new method of supporting sculpture in Maxillofacial Prosthesis

BARBOSA JUNIOR, S.A.*; PRESOTTO, A.G.C.; FALKINE, R.Z.; AZEVEDO, V.L.B.; EMÍDIO, T.C.S.; BUZZA, E.P.; BARBOSA, C.M.R.

Aim: The aim of this study is to present the use of digital resources (through Adobe Photoshop software) as an orbital prosthesis sculpture auxiliary tool. **Methods:** Although some current procedures, as prototyping, permit to obtain mirror models from the unaffected portion of the patient's face to make the prosthesis, the adjustment of external carving is not dismined depending, this being dependent of manual and artistic skills of the dentist. In order to assist the improvement of the sculpture, was developed by our team a method that would make it possible to compare the contours of the sculpture and the unaffected portion of the patient's face from the overlapping images. The sculpture was placed on the patient and the face photograph was taken. To the face photographs, has been established a standard distance to be used for both sides, obtaining two images. Subsequently, the boundaries of sculpture and unaffected side were demarcated and, from the overlapping of images, these limits were compared. **Results:** This method allowed the sculpture part without the patient being present. **Conclusions:** A final try out of the sculpture was performed, requiring minimal adjustments.

076 Fluoride toothpastes supplemented with sodium hexametaphosphate on enamel demineralization: In vitro study

SANTOS, S.S.*; CAMARA, D.M.; SANTOS, J.A.S.; PESSAN, J.P.; FRANCATI, T.M.; DANELON, M.; DELBEM, A.C.B.

Aim: To evaluate the anticaries effect of fluoride toothpastes combined with sodium hexametaphosphate (HMP) on enamel demineralization in vitro. **Methods:** Enamel bovine blocks were subjected to pH cycling, alternated with treatments with slurries of the following toothpastes (2×/day): Placebo (fluoride-free), 1100 ppm F (1100) (positive control) and 1100 plus HMP at 0.5, 1 and 2%. After pH cycling, percentage of surface hardness loss (%SH) and cross-sectional hardness (ΔKHN), as well as F present in the enamel were determined. Data were submitted 1-way ANOVA, followed by Student-Newman-Keuls' test ($p<0.05$). **Results:** Significant differences were observed among all groups regarding %SH and ΔKHN; the lowest values were observed for 1100 + 1% HMP, followed by 1100 + 0.5%, 1100, 1100 + 2% and Placebo. Enamel F uptake was similar for 1100 and 1100 + 1% HMP, but significantly reduced for other HMP concentrations. **Conclusions:** The 1100 ppm F toothpaste supplemented with 1% HMP promoted higher inhibitory effect on enamel demineralization when compared to a conventional toothpaste containing the same amount of fluoride in vitro. This toothpaste could potentially be indicated to patients at high risk of caries.

077 A esthetic rehabilitation in early childhood: a case report

CHAVES JUNIOR, S.C.*; SOARES, A.L.; MARTINS-BARBOSA, L.F.; GAVIAO, M.B.D.

Early childhood caries cause esthetic, phonetic and psychological damage. The restoration of form, function and aesthetics of anterior primary teeth with extensive coronal destruction is a major challenge for pediatric dentistry in early childhood. In such cases, the use of intra-canal fiberglass pins associated with restorations of composite resin and anatomical celluloid matrices is a viable option and has a good aesthetic result. Also, this is a quick and easy solution because it eliminates the laboratory stage, decreasing the cost. This paper aims to report a clinical case of aesthetic rehabilitation for a girl, 3 years old, presenting early childhood caries, diagnosed by clinical and radiographic examination. The aesthetic and functional impairment indicated a need for rehabilitation of the upper central and lateral incisors. It was held the adequacy of the oral environment, endodontic treatment of upper incisors, the adaptation of intra-canal fiberglass pin and restoration of coronal tooth structure with composite resin and celluloid matrix. At the end of treatment it was observed favorable results, because the fiberglass pins promoted the retention of the restorative material for coronary reconstruction, favoring aesthetics. The patient has been followed every six months, for 3 years, waiting the physiological exfoliation of the incisors rehabilitated. It can be concluded that the treatment was successful because the oral rehabilitation influenced positively the phonetic function and aesthetics, as observed clinically, improving the patient quality life, according to the report of the guardians.

078 Lymph node enlargement diagnosed as Hodgkin Lymphoma

BECERRA, S.*; ANDRADE-ELIAS, R.; MARKMAN, R. L.; FERNANDES, D. T.; SILVA, A.R.S.; VARGAS, P.A.; LOPES, M.A.

A 20-year-old female patient was referred to the Orocentro, Piracicaba Dental School, by an under-graduate student for evaluation of a node in the neck. On extra-oral clinical examination it was noticed a lymph node of fibrous consistency, fixed, asymptomatic, in the back region of the neck measuring about 3.0x3.0cm. Intraoral examination none lesion was identified. FNAB (Fine Needle Aspiration Biopsy) of the neck node was performed and Pap smear showed large amount of lymphoid cells suggestive of lymphoma. With this diagnosis the patient was referred to the head and neck surgeon who performed surgical removal of the lymph node. Histopathological and immunohistochemical analysis established the diagnosis of Hodgkin's lymphoma. Patient was referred to a hematologist for evaluation and treatment. She began chemotherapy about three years ago but because of particular problems abandoned the treatment. Approximately one year ago she restarted all the protocol of chemotherapy and recently concluded the treatment. Patient is currently in clinical follow-up without evidence of tumor. The presentation of this case report aims to reinforce the importance of evaluating the cervical region to identify potential increases in volume allowing establishment of the correct diagnosis and appropriate treatment.

079 Finite element analysis utilization in craniofacial gunshot wounds

COSTA, S.T.*; FREIRE, A.; ROSSI, A.C.; DARUGE JUNIOR, E.; PRADO, F.B.

The study of wound ballistics in head should include biomechanical science for better results in diagnosis, treatments and prognosis. Finite Element Analysis can provide many interesting tools when human head injuries need to be evaluated. The present study is the first step in systematic study the use of finite element analysis in craniofacial gunshot wound. **Aim:** The study aimed to systematically review: 1) the use of Finite Element Analysis on heads injuries, especially gunshot wounds, 2) safety of using standard patterns of Finite Element Analysis and 3) analyze and discuss advantages and deficiencies of finite element models. **Methods:** Electronic research databases, Pubmed, Scopus and Web of Knowledge, were searched using restricted key words: finite element gunshot. Studies were included if they: reported finite element analysis in heads, simulating gunshot injuries. Excluded studies were those which did not clearly describe their methods and results, had significant discrepancies, were not published in the English language or were not published yet. **Results:** There were 25 references identified by the bibliographic search strategy. Ten articles were eligible for inclusion and were fully critically appraised. **Conclusions:** The collected data was able to furnish details that the simulations occurred, as well as, some variables that may affect the predictive accuracy of the simulation.

080 Morphological analysis of entry wounds produced by projectiles fired at human mandible by finite element method

COSTA, S.T.*; FREIRE, A.; ROSSI, A.C.; DARUGE JUNIOR, E.; PRADO, F.B.

Aim: Often, the mandible is the target of firearm projectiles (FAP).It is necessary, therefore, the knowledge of the patterns of lesions produced by FAP in order to provide a dynamic illustration of the injury in the mandible region by finite element analysis (FEA). The purpose is to conduct a descriptive evaluation of the shape of the entrance hole, as well as the characteristics of the Von Misses stress regions. **Methods:** The model in three-dimensional format, as well as targeting area of interest was obtained by InVesalius 3.0b. Already in stereolithography format, setting the tetrahedral mesh was taken by ICEM CFD 14.0. Reproduction of the three-dimensional model of the projectiles was held at RHINOCEROS 3D 4.0. Simulation of the entry of projectiles, from firearm calibers .380, .40 and 9 mm, in the mandibular body, at angle of 90 and distance of 5 cm, occurred in ANSYS14, establishing patterns of injury in specific regions of the mandible. **Results:** Each of the projectiles showed different behaviors to achieve its target, producing inlet holes with distinguishable characteristics. **Conclusions:** There were noticeable differences in the morphology of the inlet holes, which have causal connection with the morphological properties of each projectile.

081 Antimicrobial activity of agroindustrial residues on pathogens that cause systemic and oral diseases

ROCHELLE, S.L.A.*; ALENCAR, S.M.; ROSALEN, P.L.

Natural products of agricultural and agro-industrial origin has been the source of many active substances and their waste needs to be recycled due to environmental sustainability, adding value, reducing pollutants and generating new compounds for dental and medical interest. **Aim:** The objective of this study was to evaluate the antimicrobial potential by the bioguided way form of organic residues extracts against systemic pathogens or of the oral cavity. **Methods:** Which this proposition, 35 quadruplicate alcoholic extracts obtained from eight waste of plant species and geopropolis were evaluated against 09 planktonic bacterial cultures and 01 yeast, to yield their respective MIC, MBC* and CFM / mL. **Results:** Waste of *Punica granatum* - Pomegranate (bark, pulp) showed activity against *C. albicans* CBS562 (62.5 and 125µg/mL), *P. aeruginosa* ATCC27853 (125 and 250µg/mL) and *Str parassanguinis* ATCC903 (125 and 250µg/mL); waste from coffee grounds (*Coffea sp*) showed activity against *Str mutans* UA159 (250 and 500µg/mL); residues of geopropolis against *S. aureus* ATCC25923, *S. aureus* MRSA ATCC33591, *S. epidermidis* ATCC12228 and *Str. mutans* UA159, respectively, 7.81 and 15,62µg/mL*; 7,81 and 15,62µg/mL*; 62.5 and 125µg/mL; 125 and 250µg/mL and 31.25 and 62,5µg/mL; and residues of *Vitis sp.* - Grapes - Petit Verdot, Pinot Noir and Verdejo, against *S. aureus* ATCC25923 (250 and 500µg/mL). **Conclusions:** We conclude that these residues have interesting potential for antimicrobial actions against the pathogens evaluated, pointing to their reuse and isolation of their bioactive natural substances (Apoio: CNPq - 140029/2014-1).

082 Influence of hormonal factors in periodontal tissues

SPEZZIA, S.*

Hormonal factors are those that act on the body at certain stages of life of an individual, being able to modify the tissue response to bacterial irritation, influencing progress, the intensity and the response to treatment of periodontal disease. Changes in hormone levels during puberty, pregnancy and menopause can modify the response of the host relative to the plaque by increasing the intensity progression of periodontal disease. This paper refers to the importance of knowledge of these clinical manifestations of hormonal nature by a dentist so you can act consciously. Hormonal influence may predispose to the development of periodontal disease or act exacerbating preexisting periodontal inflammation. In these clinical situations, periodontal treatment should be able to eliminate the inflammatory response, concomitantly it is maintenance control treatment, guiding patients about the essential oral hygiene care for them to be able at least to perform brushing and use of dental floss or tape correctly. It is used for treating periodontal instrumentation by scaling and root planing. It was concluded that with the use of periodontal therapy to attenuate the inflammatory process, one can achieve better quality of life for individuals who are in those stages of life when hormonal interference can occur in periodontal problems.

083 Antifungal activity of Mentha spp. Essential oil against yeasts Candida species

BUSATO, S.N.*; MARIANO, P.L.S.; BONI, G.C.; ANIBAL, P.C.; FOGLIO, M.A.; HOFLING, J.F.

Aim: Yeasts of Candida have become increasingly more frequent in infections associated with immunocompromised patients and related diseases. In view of the increasing occurrence of resistance of these organisms to antifungal drugs, researchers have sought to develop new potential compounds that may have action against these organisms. Previous studies have demonstrated the potential of antimicrobial action of the Mentha spp essential oil, especially against fungi of the genus Candida. The objective of this study was to evaluate the antifungal activity of essential oils from different species of Mentha spp. (M. piperita, M. aquatica and M. arvensis), Collected in different seasonal periods over one year, against Candida spp. The plants were collected monthly in CPQBA / UNICAMP. The extracted essential oils were tested for their antifungal activity by microdilution broth in strains of Candida spp. **Methods:** The oils that showed antifungal activity were those of M.piperita species, collected in the months of May to September (2 mg / mL); the species M. arvensis collected from April to September (2 mg / mL); and the species M. aquatica collected from July (2 mg / mL). **Results:** There are differences in the composition and yield of the essential oil produced by Mentha species according to the seasonal collection period. The major antifungal activity of the oils is delected during the April to September. **Conclusions:** Differences in the antifungal activity and the oils that show activity were the result of collections from April to September harvest while the oils in other periods show partial inhibition or no inhibition.

084 Antimicrobial activity of Copaifera multijuga oil against dental caries microbiota related on planktonic cells

MARIANO, P.L.S.*; BUSATO, S.N.; BONI, G.C.; ANIBAL, P.C.; MEDEIROS, R.S.; STIPP, R.N.; HOFLING, J.F.

Aim: The caries is one of the common infections in humans, affecting children and adults. One of the mechanisms involved is the caries formation of the caries biofilm, which is a complex of microorganisms with a polymer matrix, responsible for adhesion to the tooth surface. This complex of cariogenic bacteria is initially formed by microorganisms that adhere to the acquired pellicle forming a network of primary colonizers, which by bacterial interaction bind to other species considered secondary and later colonizers. Recently, natural products have been studied to promote the control of these microorganisms responsible for colonization of the biofilm, making it difficult to grip and consequently inhibiting its formation. In view of studies found in the literature on Copaifera spp., the development of research on medicinal plants as copaiba has contributed to the discovery of new antimicrobial agents. The objective of this study was to evaluate the antibacterial effect of copaiba oil against some oral microorganisms group of streptococci. **Methods:** The oil was tested by broth microdilution technique, determining minimum inhibitory concentration of different species of bacteria (S. mutans, S. gordonii, S. mitis, S. salivarius and S. sanguinis). **Results:** Among the species tested, growth inhibition was observed in S. mutans (0,031mg / ml); S. gordonii (0.062 mg / ml) and S. mitis species but S. salivarius(0.250 mg / ml). **Conclusions:** The oil Copaifera multijuga presents inhibitory activity for growth on planktonic cells of some species of oral streptococci in different concentrations been for more effective in inhibiting the growth of Streptococcus mutans.

085 Comparative photoelastic evaluation of conventional and locking plates

ARAÚJO, S.M.M.*; ASPRINO L.

The use of methods of internal bone fixation in the treatment of facial fractures and dental facial deformities is a common practice in Maxillofacial Surgery. **Aim/Methods:** The aim of this study was to comparatively evaluate stress distribution promoted by conventional plates and locking plates when applied to fixate segments with sagittal and linear contact between them. **Results/Conclusions:** According to the methodology used and obtained results we can conclude that the use of the locking fixation system showed better stress distribution than the conventional system in both clinical situations simulated, sagittal and linear contact between the segments. The results of this study should be considered as an additional factor to aid in the choice of fixation system to the facial fractures and mandibular osteotomies.

086 Effect of diferente solvent volatilization temperature on the mechanical properties of self- etching adhesive systems

BARRETO, S.C.*; BARBOSA, I.F.; PRIETO L.T.; COPPINI E.K.; PEREIRA G.D.S.; PAULILLO L.A.M.S.

Aim: This study evaluated the effectiveness of different solvente evaporation techniques in microtensile bond strength of two adhesive systems, Clearfil SE Bond (CF) and Single Bond Universal (SBU), when used in self-etching technique or enamel selective etching. **Methods:** Sixty four healthy human freshly extracted third molars were selected and divided into eight experimental groups (n = 8), the experimental variables adhesive system; volatilization temperature of 23 ± 1°C (cold temperature) and 40 ± 1°C (hot temperature); and with or without etching the cavosuperficial angle. After that, the samples were brought to the machine for thermal cycling aging (2000 cycles). The samples were subjected to mechanical microtensile testing conducted on a universal testing machine at a speed of 0.5 mm / min. Statistical analysis was performed an ANOVA with split plots ($p < 0.05$) and Tukey's test. **Results:** The decomposition of the ANOVA showed that only the factor adhesive was significant ($p = 0.0174$), and the Tukey test was applied to this factor: CF (21,71)a and SBU (27.43)b. **Conclusions:** Therefore adhesive system Scotch Bond Universal showed most, independent union of adhesive technique used.

087 The impact of oral health conditions on quality of life of drug users

MARQUES, T.C.N.*; SARRACINI, K.L.M.; PEREIRA, A.C.; MENEGHIM, M.C.; CORTELLAZZI, K.L.; MIALHE, F.L.; AMBROSANO, G.M.B.

Aim: This study aimed to evaluate the impact of oral health on quality of life of 262 drug users served by outpatient treatment in three cities of São Paulo: Limeira, Rio Claro and Piracicaba. **Methods:** The following instruments for data collection were used: OHIP-14 (Oral Health Impact Profile), WHOQOL (World Health Organization Quality of Life), Meneghim et al, 2007 and WHO ASSIST (Alcohol, Smoking and Substance Involvement Screening Test. - World Health Organization). Initially the frequency distribution and the chi-square test was used tables were built, with a significance level of 5%, to assess the associations between quality of life (WHOQOL) and the impact of oral health on quality of life (OHIP) with the other variables investigated. Variables with p <0.20 in the crude analysis were tested in a multiple logistic regression model, those remaining in the model p ≤ 5%. **Results:** The mean DMF index of the group was 13.0 (OR = 2.25; CI 95%= 1.30-3.89); low-income (OR = 2.41; CI 95%= 1.15-3.59 1.22-4.77) and user of cocaine / crack (OR = 2.02; CI 95%= 1.15-3.59) were more likely to have poor general quality of life. Volunteers with good oral hygiene and regular (OR = 3.63; CI 95%= 1.96-6.75); who reported no pain (OR = 2.69, CI 95%= 1.67-4.60) were more likely to have lower impact of oral health on quality of life. **Conclusions:** This study demonstrates that quality of life can be affected by oral health, so public policies for health promotion in this population are needed.

088 Statins and antimicrobial effects: simvastatin as a potencial drug against Staphylococcus aureus biofilm

GRAZIANO, T.S.*; CUZULLIN, M.C.; FRANCO, G.C.; SCHWARTZ-FILHO, H.; DIAS DE ANDRADE, E.; GROPPO, F.C.; COGO, K.

Aim: Simvastatin is an important lipid-lowering agent, which belongs to the statins. Several studies have explored a possible protective effect of statins to reduce the morbidity and mortality of various infectious diseases. Staphylococcus aureus is considering one of the main pathogens of nosocomial infections; its high ability to form biofilms makes the treatment difficult. The present study evaluated the effects of simvastatin on the growth, viability and biofilm formation of S. aureus. **Methods:** The MIC of atorvastatin, pravastatin and simvastatin was evaluated against 10 strains of S. aureus, Pseudomonas aeruginosa, Escherichia coli and Enterococcus faecalis. As simvastatin showed activity against S. aureus, its effect on cell viability was addressed by time-kill and post-antibiotic effect assays. A possible synergistic effect between simvastatin and vancomycin was observed. In addition, the effect of simvastatin was evaluated against biofilms of S. aureus. **Results:** The MIC of simvastatin against S. aureus were 15.65 µg/ml (ATCC 29213) and 31.25 µg/ml (ATCC 33591, 43300, 14458 and 6538). The effect of simvastatin was bactericidal at 4x>MIC and bacteriostatic at MIC concentration. No synergistic effect was found between the simvastatin and vancomycin. However, the results obtained against S. aureus biofilms showed that, in addition to inhibiting biofilm formation, simvastatin was also able to act against mature biofilms, reducing cell viability and altering the production of polysaccharides. **Conclusions:** In conclusion, simvastatin has a great potential to be explored against S. aureus biofilm, especially in relation to the discovery of new antimicrobial agents.

089 Inadequate nutrition, self-consumption of fatty foods and excess (soft drink), influencing dental erosion

BUENO, T.C.*; QUELUZ, D.P.

Aim: This work is intended to alert the problems related to inadequate nutrition, related to self-consumption of fatty foods and excess (soft drink), and explain their influence in accelerating the natural wear of the teeth (erosion). Dental erosion is the physical result of chronic, pathological and painless localized loss of mineralized dental tissue chemically subjected to acid attack without direct bacterial involvement. **Methods:** Being classified as a chronic disease with greater frequency among people 5 to 17 years due to food abuse of age, in view of the frequent consumption of sweets and soft drinks. This process is loss of chemical structure originally found in enamel or may proceed to the underlying dentin. Because there are many food acids in our diet, for example, the refrigerant, enamel and dentine are eventually deteriorated over time, erosion of the enamel hydroxyapatite through the demineralization occurs. To avoid the effects caused by food acids in the oral cavity saliva has substances that act as buffer. Wear of the tooth enamel as a result of the action of acids, may be associated with intrinsic or extrinsic factors. We know that soft drink does not contain any nutrients. There are several reasons not to take soft drink constantly. **Results/Conclusions:** We can conclude that a healthy diet (balanced and nutritious diet) not only helps in weight control, but also helps in preventing diseases. To promote oral health measures should be emphasized because of the destructive nature of these lesions.

090 Orbital aperture morphometry by PA Caldwell radiographs in a Brazilian population: discriminant function analysis

BREGADIOLI, T.*; ROSSI, A.C.; FREIRE,A.R.; DARUGE JUNIOR, E.; LINE, S.R.P.; PRADO, F.B.

Aim: In this study were evaluated the orbital aperture measurements in PA Caldwell radiographs to sex determination by discriminant function analysis in a Brazilian population. **Methods:** The orbital apertures of 97 individuals were examined through PA Caldwell radiographic technique. The area (in mm2), the maximum width and height of the orbits were measured (in mm). The inter-orbital distance, which is the minimum distance between the medial walls of the orbits, was also measured (in mm). The measurements were performed in ImageLab2000® software. The data were analyzed using R software (R Development CORE TEAM, 2008) and the linear discriminant function (using pooled covariance matrix) and quadratic discriminant functions (using within group covariance matrix) were computed. The error percentage of classification was calculated on the full data set (resubstitution) and after cross-validation (leave-one-out). The stepwise discriminant analysis was used for the variable selection (stepwise method). **Results:** The best discriminant function (0,768) was area-height-width-inter-orbital distance. These discriminant function equations were derived from the unstandardized coefficients and the constant. **Conclusions:** The discriminant function used in the present study describes the optimal separation between the sex and also shows that there are significant variations between the sex and the measurements evaluated.

091 Stress dissipation on the periimplantar mandibular bone at inferior canine region

BARBIN, T.*; CARIA, P.H.F.

Aim: The aim of this study was to evaluate the stress areas in the peri-implant bone at the inferior canine region. **Methods:** A tomography image from human mandible was used, which was built a three-dimensional model in stereolithographic format (STL). The model involved the compact and cancellous bones and the implant geometry, which was installed at the inferior canine level using Rhinoceros 3D 5.0 software. The final geometry was converted to a finite element mesh using Ansys v14 software, in which was characterized by its mechanical properties. Axial and oblique forces with 200N were applied, simulating masticatory force in order to evaluate von Mises stress and maximum principal stress in bone contact with the implant. Displacement restriction was applied in the bone segments, at the cut plane region. **Results:** The von Mises stresses in axial and oblique forces showed high stress areas near the abutment. Stresses in middle and apical regions had decreased. In axial force, the Maximum Principal stress had showed compression areas on the lingual side at implant collar and buccal side at the middle areas. Tension occurred in apical area. In oblique forces, compression areas were taken in lingual side and tension in other regions. **Conclusions:** Variations in direction masticatory forces result in stress variation, in which high stresses were taken in implant collar areas.

092 Different denture adhesives improve the masticatory function of denture wearers

GONÇALVES, T.M.S.V.*; GARCIA, R.C.M.R.

Aim: Conventional denture wearers have impaired masticatory function due to the reduced denture stability and retention of these prostheses. Since denture adhesive (DA) increase the retention of the denture, such product could impact the masticatory function, especially for patients with a severely resorbed ridge. This clinical trial evaluated the influence of DA use on masticatory function in denture wearers according to their denture-bearing ridge status. **Methods:** Thirty edentulous subjects, wearing new well-fitting dentures, were classified as having either normal or resorbed ridge. Mastication was evaluated in patients who completed chewing tests with and without two DA substances (cream and strips), which were randomly assigned. An Optocal chewing test with a sieve method analyzed masticatory performance. A kinesiographic device evaluated chewing cycle, and a visual analog scale measured masticatory ability. **Results:** Data were submitted to Mauchly's sphericity test, and PROC MIXED procedures were conducted on repeated measures, followed by Tukey-Kramer tests for comparisons between groups ($P \leq 0.05$). DA increased masticatory performance and ability in patients with both ridge types ($P<0.05$). Subjects with resorbed ridges showed the best masticatory performance ($P<0.001$) and lowest chewing cycle time ($P<0.001$) with DA cream, followed by DA strips and the non-adhesive trial. For normal ridge subjects, decreases in X50 values were only significant with DA use ($P<0.05$), regardless of DA type. **Conclusions:** Denture-bearing ridge status alone did not alter masticatory function in any of the parameters evaluated. DA improves mastication by shortening the chewing cycle and by enhancing chewing ability and performance.

093 Evaluation of the susceptibility of oral streptococcus ssp. to the marking by the complement system

de Carli, T.R.*; Alves, L.A.; Stipp, R.N.; Hofling, J.F.; Mattos-Graner R.O.

Aim: To compare the complement system marking between blood and oral cavity isolated strains of the species S.mitis and S.oralis. **Methods:** The deposition of C3b by the complement system was compared between blood and oral cavity isolates of the species S.mitis (4 from mouth and 4 from blood) and S.oralis (4 from mouth and 5 from blood). For that, 1x106ufc/ml of the strains in A550nm 0,3 were incubated with 20% human serum (20 min, 37oC, 10% CO2). After PBS wash, surface C3b was marked with FITC-conjugated human IgG anti-C3b antibodies and the frequency of marking was determined by flow cytometry (FACSCalibur). Surface C3b percentages were compared between mouth and serum isolated strains by the nonparametric test Kruskall-Wallis with Dunnet post-test. **Results:** For S.mitis and S.oralis, the frequency of C3b deposition varied between 22 and 1,6; and 34,5 and 9,1%, respectively. Percentages of S.mitis strains C3b deposition were 9,64 (± DP5,2) and 8,04%(± DP4,3) between mouth and blood isolates, respectively. Mouth and blood S.oralis isolated strains showed C3b deposition 23,9 (± DP5,9) and 21,8%(± DP7,3), respectively. S.mitis SK142 and S.oralis SK113 (both strains isolated from mouth), presented the highest frequency of C3b deposition. **Conclusions:** Deposition of complement C3b showed great diversity between strains of S.mitis and S.oralis. However, some oral cavity isolates presented C3b deposition inferior to that of strains isolated from blood, suggesting the existence of independent factors on the scape to the complement system which benefit these species survival in blood.

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094 Evaluation of contrast sensitivity function in the perception of shades of gray in periapical digital radiography

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Aim: To evaluate the contrast sensitivity function (CSF) in the presence of different densities for detection of specific shades of gray on digital periapical radiographs. **Methods:** Two aluminum step-wedges with thickness ranging from 1 to 11 mm (1 mm increments) were used. One step-wedge was fragmented to obtain isolated steps. The two step-wedges were radiographed with VistaScan® and Digora Optime systems. The fragmented steps were arranged randomly on the phosphor plate in ten different combinations, totaling 120 images for each system. Three groups of evaluators (Oral Radiology Specialists, Non-specialists and Graduate Students) analyzed the images, which were reassessed after 30 days. **Results:** Intra and interobserver agreement ranged from 0.79 to 0.94 for both systems. The Wilcoxon test showed a statistically significant difference ($p < 0.05$) in all groups of evaluators in relation to the gold standard in both systems, except for non-specialists and graduate students in VistaScan®. **Conclusions:** It was concluded that adjacent shades of gray, professional experience and the system used influence the CSF.

095 Corrosion kinetics and topography analysis of Ti-6Al-4V alloy subjected to different mouthwash solutions

BELINE, T.*; FAVERANI, L.P.; OGAWA, E.S.; MATOS, A.O.; ASSUNÇÃO, W.G.; MESQUITA, M. F.; CONSANI R. L. X.; BARÃO, V.A.

Aim: To evaluated the corrosion kinetics and surface topography of Ti-6Al-4V alloy exposed to mouthwash solutions (0.12% chlorhexidine digluconate, 0.053% cetylpyridinium chloride and 3% hydrogen peroxide) compared to artificial saliva (control). **Methods:** Twenty Ti-6Al-4V alloy discs were used and divided into 4 groups (n=5). For the electrochemical assay, standard tests as open circuit potential and electrochemical impedance spectroscopy (EIS) were applied at baseline, 7 and 14 days after immersion in the solutions. Scanning electron microscopy, atomic force microscopy and profilometry (Ra) were used for surface characterization. Total weight loss of discs was calculated. Data were analyzed by ANOVA and Bonferroni's test ($\alpha=0.05$). **Results:** Hydrogen peroxide generated the lowest polarization resistance (Rp) values for all periods ($P<0.05$). For the capacitance (Cdl), similar results were observed among groups at baseline ($P=0.098$). For the 7 and 14-day periods, hydrogen peroxide promoted the highest Cdl values ($P<0.0001$). Hydrogen peroxide promoted expressive superficial changes and greater Ra values than the others ($P<0.0001$). **Conclusions:** It could be concluded that solutions containing cetylpyridinium chloride and chlorhexidine digluconate might be the mouthwashes of choice during the post-operatory period of dental implants. However, hydrogen peroxide is counter-indicated in these situations. Further studies evaluating the dynamics of these solutions and immersing the disks in daily cycles (two or three times a day) to mimic a clinical situation closest to the application of mouthwashes in the oral cavity are warranted.

096 Do patients' expectations influence the results of acupuncture?

GRILLO, C.M.*; ZOTELLI, V.L.R.; SOUSA, M.L.R.

Aim: Although there seems to be evidence of significant relationship between patient expectations and acupuncture outcomes, there are some inconsistencies between studies. To determine whether the patients' expectations influence the results of the reduction in nausea by stimulating an acupuncture point during intraoral molding. **Methods:** A controlled, double blind clinical trial, conducted at FOP / UNICAMP, from February to August 2013, with 33 adult volunteers of both sexes, who reported to have presented symptoms of gag reflex in previous dental attendances. Experimental (n = 17), and Control (n = 16) groups, treated with real acupuncture or non-penetrating sham acupuncture at acupoint PC6, respectively. Both groups had two impressions taken (or attempted molding) of the maxillary arch, the first attempt before and the second, after acupuncture. Nausea was assessed by the indices (GSI Gagging Severity Index (GSI), and GPI (Gagging Prevention Index) The volunteers' expectation of reducing nausea by acupuncture was assessed by asking the question: Do you believe acupuncture can solve your nausea problem?, A Likert five-point scale, with the alternatives: No; I don't think so; maybe; I think so; and Yes was used to assess the responses. For the statistical analysis the t-test and the Spearman Correlation Coefficient were used. **Results:** There was reduction in nausea in the experimental group ($p < 0.05$). There was no correlation between expectation and reduction in nausea in any group ($p>0.05$). **Conclusions:** The acupuncture point PC6 was effective in controlling nausea, and the volunteers' expectations had no influence on the outcome (reducing nausea).

097 Verrucous carcinoma of the paranasal sinuses

GAMBA, T.O.*; FLORES, I.L.; TORRIANI, M.A.; ALMEIDA, S.M.; VASCONCELOS, A.C.U.; TARQUINIO, S.B.C.; ETGES, A.; GOMES, A.P.N.

Verrucous carcinoma (VC) is a well-differentiated variant of squamous cell carcinoma with predilection for the oral cavity and, less frequently, the larynx. The paranasal sinuses involvement is rare with few case reports in the English literature. A 73-year-old Caucasian man was referred to Center of Diagnoses of Oral Diseases of Pelotas Dental School with the chief complaint of asymptomatic swelling in the maxilla associated to nasal obstruction, lasting 6 months. Her medical history was not contributory and the extraoral findings were unremarkable. Intraoral examination showed an area of exposed necrotic bone on the anterior maxilla associated with significant mobility. Discrete bone rarefaction was found in the panoramic and periapical radiographies, suggesting the clinical diagnosis of osteonecrosis. Osseous debridement followed by histopathology analysis revealed hyperplastic well differentiated stratified squamous epithelium exhibiting pronounced keratin, duplication of basal layer and focal hyperchromatism with blunting projections, pushing margins and intact basement membrane. Ephitelial cell nests penetrating to the superficial connective tissue, osseous necrotic fragments, bacterial colonies and sinus lining epithelium completed the histopathologic features. Complementary fan beam computed tomography showed bone erosion involving alveolar bone ridges, hard palate and extending to anterior wall of the maxillary sinus, bone and left zygomatic arch, floor of orbit and bilateral nasal bones. Clouding area involving maxillary sinuses, frontal sinus and ethmoid cells suggesting soft tissue density was observed. The final diagnosis of sinusal VC was given and the patient was referred to physician with establishment of palliative chemoradioteraphy treatment and continuous follow-up.

098 Surface alteration of nanocomposite submitted to bleaching treatment and accelerated artificial aging.

GOUVEIA, T.H.N.*; AMBROSANO, G.M.B.; PAULILLO, L.A.M.S.; AGUIAR, F.H.B.; LIMA, D.A.N.L.

Aim: To evaluate the influence of home-bleaching with different thickening agents on the gloss and roughness of a nanocomposite aged or not. **Methods:** One-hundred cylindrical samples (7mmX2mm) of composite (Filtek Z350 XT®, 3M/ESPE) were randomly divided into 10 groups (n=10). Half of the groups were subjected to artificial accelerated aging (AAA) prior bleaching and the others were just bleached. The bleaching treatments were performed for 4 hours during 14 days and they were assigned: carbamide peroxide (CP) 16%+carbopol; CP+natrosol; carbopol; natrosol and without treatment (control). Gloss and roughness were analyzed to assess the effect of bleaching and AAA. The gloss data were submitted to ANOVA two-way and Tukey tests ($p<0.05$), while the roughness data were evaluated by Kruskal Wallis, Dunn and Mann-Whitney tests ($p<0.05$). Besides, roughness was qualitatively assessed using Atomic Force Microscopy (AFM). **Results:** AAA reduced gloss and increased roughness with statistical significant difference. For gloss analysis, the AAA + CP treatments presented the lowest values with significant difference in relation to the other groups. For roughness, in AAA groups, CP+carbopol showed the higher alteration being statistically different from the others, with exception of CP+natrosol. In case of groups without AAA, the treatments with natrosol demonstrated the higher roughness values with significant difference in relation to the control, however without difference in relation to treatments using carbopol. **Conclusions:** Home-bleaching with carbopol changed gloss and roughness of aged composite. However, using natrosol instead of carbopol as thickening agent, just the surface gloss was reduced.

099 Ryodoraku (energy biomeasurement): an objective measurement in Acupuncture treatment

ROZO, R.A.L.*; ZOTELLI, V.L.R.; FORTINGUERRA, M.L.B.; SOUSA, M.L.R.

Aim: The Ryodoraku method is an objective manner by which to measure the energy of acupuncture meridians. **Methods:** Measurements are made in 24 electropermeable points, based on the presence of the 12 acupuncture meridians on each side of the body. These may describe the energy level (Qi) in the respective meridians, with 12 points being located in the fists of the hands: Lung (P9), Pericardium (PC7), Heart (C7), Small Intestine (ID5), Triple Heater (TA5), Large Intestine (IG5), and the other 12, which are located in the feet: Spleen-Pancreas (BP3), Liver (F3), Kidney (R3), Bladder (B64), Gall Bladder (VB40), and Stomach (E42). **Results:** The majority of these points are source points (Yuan), with a higher concentration of energy than the other points. This electronic detector measures the intensity of the points in amperes, with an established voltage of 12 volts and the result depends on the resistance of the points measured. The points selected are effective for the measurement of energy levels (QI) of the meridian, and are associated with the respective internal organs. The values maybe represented in a Ryodoraku Graph. According to Traditional Chinese Medicine (TCM) diseases result from imbalances in the energy flow in the meridians. **Conclusions:** Thus, Ryodoraku is an energy diagnostic tool, of a non invasive nature, and low cost. It may be applied to restore the patient's energy balance and thus prevent, or potentiate the cure of diseases. The use of this technique is being implemented by the Group of Acupuncturist Dentists at Piracicaba Dental School.

100 Effect of plasma and primer application in the bond strenght of a resin cement to zirconia-based ceramics

SOUZA, V.T.F.S.*; NEGREIROS, W.M.; GIANNINI, M.

Aim: The aim of this study was to evaluate the bond strength (BS) of a self-adhesive dual-cure cement (Panavia, Kuraray) to two zirconia-based ceramics (ZirCAD - Ivoclar Vivadent e Katana – Noritake) with previous application of a argon plasma gas and/or of a bonding agent (Z-Prime, Bisco). **Methods:** The zirconia plates had the approximate dimensions of 13mm length x 5mm width x 1mm thickness. Specimens were regularized with sandpapers of #600 granulation and treated accordingly to each experimental group. The cement was manipulated and inserted into a cylindrical Teflon matrix with internal dimensions of 2,3mm length x 1mm height. Microshear testing was performed by a universal testing machine (EZ Test, Shimadzu, Japan) and the BS values were expressed in MPa. Data were analyzed by three-way ANOVA and Tukey tests (5%). **Results/Conclusions:** The plasma increases the BS of the Panavia F resin cement. The primer alone did not produce significant increase of the BS. One-year water storage decreased significantly the BS of the resin cement to both zirconia ceramics, independently on the treatment of the specimens.

101 Dental treatment and its impact on quality of life: project on the application of Oralimpacts on daily performance index

BLASIG, V.R.*; DA COSTA, A. M.; ROSÁRIO DE SOUZA, M. L.

Aim: Oral diseases are associated with pain, anxiety and impaired social function. This viewof oral health related quality of life led to the development of socio-dental indicatorssuch as the Oral impacts on daily performance (OIDP). **Methods:** The OIDP has been used toassess oral health status and estimated need for dental treatment by allowing the level ofimpact to be assessed objectively, and to investigate the main symptoms and oralproblems perceived as causing dental impact. Eight performances related to physical,psychological and social aspects make up this index. This is a cross-sectional study thatwill examine the dental impacts on daily performance of the patients (adults andelderly) of the Basic Health Unit (BHU) of Jardim Oriente, eastern zone of Piracicaba,SP, by means of application of a questionnaire (OIDP) before dental treatment beginsand after its conclusion in 2014. **Results:** Data collection will be performed by undergraduates cientific initiation students, in the waiting room of the UBS. The patient must also beasked to sign a term of free and Informed consent, agreeing to participate in the study. **Conclusions:** However, as there is a lack of systematic information on the psychological and socialimpact of oral diseases on individuals and society, and considering the small number ofpublications on the subject in the country, it is necessary to devellop researches with theuse of social-dental indicators.

102 Matrix metaloproteinases immunohistochemical expresion and gelatinolytic activity of in vivo irradiated teeth

GOMES, W.S.*; PAGLIONI, M.P.; PRADO, A.C.R.; LOPES, M.A.; MARQUES, M.R.; GÓES, M.F.; SANTOS-SILVA, A.R.

Aim: This study will test the hypothesis that radiation could induce a direct damage to dental hard tissues and increase the expression of Matrix Metalloproteinases (MMP) within dentin leading to caries related radiotherapy (RCC). **Methods:** A total of 39 samples, including 22 teeth that received in vivo radiotherapy (RDT) and 17 teeth from non-irradiated patients with head and neck cancer (HNC), were grouped into two experimental groups that were evaluated to the gelatinolytic activity using ground sections (n=23) and to immunohistochemical expression of MMP-2, MMP-9 and MMP-20 in histological sections (n=16) prepared by demineralization (experimental group II). **Results:** Preliminary analyzes indicate a high gelatinolytic activity in areas of decay in both irradiated and non-irradiated groups, no statistically significant difference in the expression of anti-MMP-2, MMP-9 and MMP-20 and an increased expression of MMP-20 in areas affected by RCC and conventional caries. **Conclusions:** The results of this study suggest that direct effects of radiation may not be able to alter the expression or activity of major MMPs involved in the organic matrix destruction on caries development of teeth from HNC patients; and that, possibly, the direct effects of RDT on the dental tissues may not be essential to the onset and progression of RRC. Nevertheless, more studies are necessary to understanding the role of these MMPs and the RCC.

103 Chromatic and morphological analysis of bleached enamel exposed to different mouthrinses

VIEIRA-JUNIOR, W.F.*; FERRAZ, L.N.; AMBROSANO, G.M.B.; AGUIAR, F.H.B.; LOVADINO, J.R.; LIMA, D.A.N.L.

Aim: To evaluate, in vitro, the effect of mouthrinses exposure on bleached enamel. **Methods:** Sixty bovine enamel blocks were bleached with 35% hydrogen peroxide and randomly divided into six groups in accordance with mouthrinse exposure (n=10): G1-Periogard Colgate®, G2–Plax Classic Colgate®, G3–Plax Whitening Colgate®, G4–Luminous White Colgate®, G5–Listerine® Tartar Control e G6 - Purified water (control). After bleaching, the specimens were immersed in mouthrinse twice daily for 14 days (manufacturer's instructions). The specimens were stored in artificial saliva for all experiment. It was performed enamel roughness (Ra) and color analysis in the frames: before treatment (T0), after 24 hours of bleaching (T1) and after 14 days of mouthrinse exposure (T2). Color was assessed by reflectance spectrophotometry and quantification were in CIEL*a*b* coordinate system and difference colors analysis with the deltaE formula. Scanning electron microscopy (SEM) was used to evaluate enamel morphology. Statistical analysis: Ra- ANOVA (Proc Mixed), color - L*, a*, b*- Friedman, Kruskal-Wallis, Dunn, deltaE- ANOVA and Tukey-Kramer ($p < 0.05$). **Results:** Concerning Ra , G3 and G5 did not recover the initial Ra compared to control. G5 showed increasing in roughness (T1xT2). For color analysis, G2 presented values of a* (a+ = redness) statistically different between times (T1xT2) and deltaE values were clinically perceptible (deltaE=3.33). **Conclusions:** Listerine® Tartar Control increased roughness and Colgate® Plax Classic changed the color of bleached enamel.

104 TMJ function after partial condylectomy in active mandibular condylar hyperplasia

SANTOS, Z.T.*; OLATE, S.; LANATA-FLORES, A.; CORREIA-MEDEIROS, R.; DE ALBERGARIA-BARBOSA, J.

Aim: Condylar hyperplasia is a frequent pathology that causes severe facial asymmetries. The partial condylectomy generally halts the disease. The aim of this research was to examine post-condylectomy TMJ function. **Methods:** 14 patients were included in this study, 6 male and 8 female. The average age was 21 years old. In all, the partial condylectomy was performed with preauricular or endaural access and the osteotomy were performed with drills, saw or an ultrasonic system. The patients were assessed with 3 or more time after surgery and were considering maximum mouth opening, right and left lateralities, presence of pain, noises, alterations in the facial nerve (VII) and esthetic alteration from the scar. The analysis was performed with the visual analog scale (VAS) and with a 7 cm metallic rule. Data analysis was descriptive plus chi-square test considering p value < 0.05 for statistical differences. With an average of 11 month after surgery. **Results:** The results showed that the open mouth (over 35 mm) and literalities (average 9 mm for the both right and left side) were normal and without statistical differences between the right or left side. Noise was observed in 3 patients and pain was observed in two patients with level 2 and 1 (VAS score). Scar was not related to problem with patient and the temporal branch of facial nerve was observed with limitations but without problem for patients. **Conclusions:** It can be concluded that the condylectomy is a safe and effective procedure with low morbidity for patients.

105 Influence of MI Paste™ and different adhesive systems on microtensile bond strength of demineralized dentin

SOUSA, J.P*; BARBOSA-MARTINS, L.F.; ARAUJO, G.S.A.; CASTILHO, A.R.F.; PUPPIN-RONTANI, R.M.

Aim: To evaluate the effect of MI Paste™ and adhesive systems on the microtensile bond strength (μTBS) of demineralized dentin. **Methods:** Thirty-six human third permanent molars with mid-coronal portion of dentin exposed were randomized in 6 groups (n=6) according to factors studied (dentin treatment and adhesive system): G1.SD/SB–Sound Dentin/Adper™ Single Bond 2; G2.SD/CSE-Sound Dentin/Clearfil™ SE Bond; G3.DD/SB–Demineralized Dentin/Adper™ Single Bond 2; G4.DD/CSE-Demineralized Dentin/Clearfil™ SE Bond; G5.TD/SB-MI Paste™-Dentin treated with MI Paste™ for 1min/Adper™ Single Bond 2; and G6.TD/CSE-MI Paste™-Dentin treated with MI Paste™ for 1min/Clearfil™ SE Bond. Before dentin treatment and bond procedures it was applied acid gel on 24 molars producing a demineralized dentin. Adhesive/restorative procedure was performed constructing composite blocks with 4 mm height. They were stored in deionized water for 24 hours, sectioned in beams (1mm2) and submitted to μTBS test. SEM evaluated the types of fracture. μTBS data (MPa) were submitted to two-way ANOVA and Tukey tests ($p<0.05$). **Results:** It was found an interaction between the factors studied ($p<0.01$). TD/SB - MI Paste™(45.25) and TD/CSE-MI Paste™(48.10) presented the highest values of μTBS. SD/SB(40.8) showed higher values of μTBS than SD/CSE(32.9)($p<0.05$). No differences between DD/SB(26.4) and DD/CSE(25.4), and between TD/SB-MI Paste™(45.2) and TD/CSE-MI Paste™(48.1) were observed($p<0.05$). There was a predominance of adhesive, cohesive/composite and cohesive/dentin failures in DD/SB and DD/CSE; TD/SB-MI Paste™, DH/SB and DH/CSE; and TD/CSE-MI Paste™, respectively. **Conclusions:** The treated dentin with MI Paste™ showed to be the most favorable alternative to adhesive restorations in a short term, with substrate/adhesive dependence.

106 Mandibular third molars extraction as a risk factor for mandibular fractures

FOGAÇA, J.F.*; FAVERANI, L.P.; RAMALHO-FERREIRA, G.; FERREIRA, S.; BASSI, A.P.F.; ARANEGA, A.M.; ÁVILA-SOUZA, F.; GARCIA-JUNIOR, I.R.

Mandibular fractures during or after extraction of mandibular third molars are rare. Several factors are associated with greater involvement of this site, such as the presence of the third molar, being the region of lever and also the presence of impacted teeth, osteoporosis, lesions, atrophy of the mandibular bone, or local infection. This study aimed to report two clinical-surgical cases; the first case of a 52 year old male, admitted to Santa Casa de Araçatuba reported to have suffered accidental fracture of the jaw during tooth extraction. Through extra and intraoral clinical examination, and panoramic radiographic examination, composed fracture with displacement of mandibular angle was observed. It was treated by internal fixation using two plates and screws. The second case was a 42-year-old female patient, reporting pain in the region of the left mandibular angle. In computed tomography, inclusion of the element 38 with intimate relationship with the roots of the mandibular base was observed. The surgery was performed under local anesthesia following the surgical steps of osteotomy, tooth dislocation and odontosection were performed carefully, allowing not to cause mandibular fracture, besides preserving the inferior alveolar nerve. Thus, it is concluded that the professional should pay attention to surgical principles during extractions of third molars, avoiding complications such as mandibular fractures. If this happens, symptoms and imaging exams are fundamental for the diagnosis and establishment of satisfactory treatment planning.

107 Evaluation of osteoconductive potential of Bio-Oss or Bio-Oss Collagen in critical bone defects

FOGAÇA, J.F.*; MACIEL, J.; FAVERANI, L.P.; RAMALHO-FERREIRA, G.; CONSOLARO, R.B.; OKAMOTO, R.; SÁNCHEZ, M.D.P.R.; BASSI, A.P.F.

The search for biomaterials that could act as scaffold for bone defects reconstruction is a constant challenge for tissue engineering. **Aim:** The aim of this research was to evaluate the osteoconductive features of bovine bone lyophilized Bio-Oss® (BO) compared to Bio-Oss Collagen® (BOC) by histomorphometric analysis, during bone repair process in critical size defects of calvaria rats (8mm). **Methods:** Groups were divided depending of the filling biomaterial as follow: Group BO: Bio-Oss® (n=15). Group BOC: Bio-Oss Collagen® (n=15). After 7, 30 and 60 days 5 rats of each group were euthanized with anesthetic overdose. Specimens were laboratorial processed for histomorphometric analysis. **Results:** Histological analysis showed a higher inflammatory process, in BOC group in all periods than the BO group. Histometric analysis of bone new formations showed a mean of 11% of new bone formation in both groups after sixty days of evaluation, and it was not observed statistical differences among groups (BOC- BO) within the studied periods after applying the ANOVA test, considering a significance level of 5%. **Conclusions:** It was possible to conclude that this experimental model did not showed osteoconductive potential of the BOC and BO.

108 Total smile: Oral health promotion for elderly

HARADA, P.K.; LAPADULA, T.N.; TANGO, R.N.; ALVES, J.L.R.

The project being carried out continuously for directly reach internal asylum and their caregivers modifies positively the quality of life of people and indirectly can lead to information about hygiene and mouth care to people external to the institution. With the use of dental truck was possible to perform curative care and preventive not only as occurred in previous years. Graduate students had the chance to guide graduate students under the supervision of teachers we noa curative care, restorative and prosthesis manufacturing. These visits enabled the students to have contact with new techniques for implementing procedures so their knowledge. Still, at the contact with the inmates, exacerbate up the human profile of students, the desired characteristic of a professional that deals with the health of individuals. Students and makes the calls, also participated in the laboratory stages of complete denture treatment. About 180 procedures, among them cleaning of dentures, periodontal scaling, restorations and procedures for complete denture treatment were performed. There was also talk to caregivers and conversations with the elderly, which in most present lack of affective human contact.

109 Bimaxillary dentoalveolar protrusion: Retreatment with 4 second premolars extractions and just intraoral dental anchorage

VARGAS-NETO, J.

When she decided to start an orthodontic therapy for the second time, this young girl was 19 years and 11 months old. Her main complaint was the difficult she had to close her lips, because, to do so, she needed to do an uncomfortable contraction of perioral musculature. Clinical facial analysis confirmed that condition as well as an increased anterior facial height, no significant lack of symmetry, nice upper incisor exposition both at lip rest and when smiling and a nice median structures alignment, specially of maxillary median line to the sagital median plane. Lateral cephalometric radiograph confirmed the vertical facial pattern, a Class II maxillo-mandibular relationship and also flared upper and lower incisors. Concerning teeth and occlusion there were an Angle Class I relation of canines, premolars and molars; upper and lower incisors were proclined; approximately 2mm of overjet and overbite and a lack of space of about 1,5mm in both upper and lower dental arches. Extraction of 4 second premolars was planned in order to allow incisors and lips retraction and though a passive lip closure, improving facial balance. Orthodontic technique used was the SSW (Simplified Straight-Wire), proposed by Rodrigues (2004). After 18 months of active treatment, appliances were removed and retentions placed in. Achieved results lead to improvements judged possible to reach mainly concerning facial balance therefore patient's chief complaint was properly solved.

110 Two-year clinical performance of porcelain laminate veneers: a case report.

ARCHANGELO, K.C.*; ARCHANGELO, C.M.; CORREA, G.O.; PENTEADO, M.M.; CAMPAGNOLO, M.C.B.; NESELLO, D.G.; BERTONCELO, C.A.

The aesthetic appearance, durability and biocompatibility of porcelain laminate veneers have made them a well-established option to restore the harmony of the smile. Combined with current adhesive systems, the minimum thickness of ceramic restorations have achieved high clinical success rate and longevity, thus reestablishing the strength and function of teeth. This case illustrates the use of thin porcelain laminates in maxillary anterior teeth up to the second premolar, with the aim to restore enamel wear, provide tooth volume and minimize the black space between the central incisors. A pressable lithium disilicate ceramic was used for this purpose and a clinical protocol was followed: digital photography, wax up, mock up, cementation and clinical proservation. A two-year follow up showed dental integrity with no changes in shape, function or aesthetics appearance. Thereby it can be concluded that porcelain laminate veneers offer a reliable and effective procedure for the conservative and aesthetic treatment of anterior teeth being widely accepted and presenting long-term outcomes.

111 Esthetic rehabilitation with thin porcelain laminate veneers

ARCHANGELO, K.C.*; ARCHANGELO, C.M.; CORREA, G.O.; PENTEADO, M.M.; CAMPAGNOLO, M.C.B.

Due to their excellent clinical performance, high esthetic appeal, biocompatibility and long-term predictability, the use of porcelain laminate veneers have become a well-established option for restorative procedures for treatment of teeth in the front area of the mouth. Furthermore, they are a valid alternative to complete coverage restorations since they avoid aggressive dental preparation, thus maintaining tooth structure. The main indications include alterations in the shape, color, slight malposition and closing of diastema. This case presentation demonstrates restoration of maxillary anterior teeth up to the second premolar which presents small sizes and large opening contacts posing a negative effect on the smile of the patient. The material of choice was a pressable lithium disilicate ceramic. The clinical protocol included digital photographs, the wax up and mock up techniques and a step-by-step adhesive procedures. As a result the ceramic system reproduced biomimetic principles, color, texture and optical qualities of the enamel in total harmony with the adjacent teeth, satisfying the patient's aesthetic desires, with a direct effect on the quality of life. Thereby, the use of porcelain laminates can be a suitable alternative to conventional prosthetic approaches with excellent prognosis.

112 Evaluation of dental caries experience and oral health-related quality of life in school children of Carapicuíba (SP)

SOUSA, K.G.*; CASTELO, P.M.; BARBOSA, T.S.

Aim: Dental caries experience can be associated with negative impacts on daily activities, especially in children. Thus, this study aimed to assess the relation between dental caries experience and oral health-related quality of life (OHRQoL) of schoolchildren. **Methods:** One hundred forty two 12-yr-old schoolchildren, both genders, were randomly selected from public school of Carapicuíba, SP. Dental caries experience was assessed using DMFT and dmft index (sum of decayed, missing and filled teeth in the permanent and primary dentitions, respectively). Children were allocated into two groups: with dental caries experience (DMFT+dmft≥1) and controls (DMFT+dmft-0). OHRQoL was measured using the Brazilian Portuguese version of the Child Perceptions Questionnaire (CPQ11-14), which contains 37 items divided into four domains (oral symptom, functional limitation, emotional well-being and social well-being) and two questions about global rating of oral health and overall well-being. CPQ11-14 scores range from 0 to 4. The higher the score, the greater the negative impact on OHRQoL. Data were analyzed by descriptive statistic, Kolmogorov-Smirnov, chi-square and Mann-Whitney tests. **Results:** Out of 142 children, 59,5% had dental caries experience and 51,7% were females. Children with dental caries experiences had higher CPQ11-14 total, emotional and social well-being domain scores than the latter ($p<0.01$). **Conclusions:** Dental caries experience was associated with child' negative perception of oral health, especially of the psychosocial aspects.

113 Evaluation of direct effects of radiation on dental pulp micromorphology

FARIA*K.M.; BRANDÃO T.B.; RIBEIRO A.C.P.; ALMEIDA O.P.; LOPES M.A.; SANTOS-SILVA A.R.

Teeth are often included in the radiation field during head and neck radiotherapy and recent clinical evidence suggests that dental pulp is negatively affected by the direct effects of radiation, leading to impaired sensitivity of the dental pulp. **Aim**: This study aimed to investigate the direct effects of radiation on the microvasculature, innervation, and extracellular matrix of the dental pulp of patients who have undergone head and neck radiotherapy. **Methods:** Twenty-three samples of dental pulp from patients who finished head and neck radiotherapy were analyzed. Samples were histologically processed and stained with hematoxylin and eosin for morphological evaluation of the microvasculature, innervation, and extracellular matrix. Subsequently, immunohistochemical analysis of proteins related to vascularization (CD34 and smooth muscle actin), innervation (S-100, NCAM /CD56, and neurofilament), and extracellular matrix (vimentin) of the dental pulp was performed. **Results:** The morphological study identified preservation of the microvasculature, nerve bundles, and components of the extracellular matrix in all studied samples. The immunohistochemical analysis confirmed the morphological findings and demonstrated a normal pattern of expression for the studied proteins in all samples. **Conclusions:** Direct effects of radiotherapy are not able to generate morphological changes in the microvasculature, innervation, and extracellular matrix components of the dental pulp in head and neck cancer patients.

114 Effects on salivary gland of rats exposed to methylphenidate during pregnancy

LIMA, K.S.*; COSTA, G.A.C.; HIRATA, B.S.; RAMOS, S.P.; SALLES, M.J.S.

Aim: Analyze the Methylphenidate, very antidepressant prescribed for patients with attention deficit can affect the salivary glands and influence the quality of life of the patient. **Methods:** The drug was used Ritalin (Novartis). Each group consisted of 16 pregnant females. The treated group (T) received 5 mg/kg of drug, via subcutaneous injection. The control group (C) received an equivalent volume of sterile saline. For histopathological analysis, females had their salivary glands removed, embedded in paraffin and stained with hematoxylin/eosin. The Statistical test used was Kolmogorov-Smirnov, following the t test for independent samples when comparing the treated and control groups. The level of significance was $p < 0.05$. **Results:** parotid gland showed significant changes in the average radius of the secretory ducts (C=11.61 µm; T=14.79 µm) and number of acini (C=57; T=40,5). The submandibular gland was the most affected, with significant changes within the radius acini (C=12.94 µm; T=18.82 µm), radius ducts (C=12.33 µm, T=15.67 µm) and wall thickness of the secretory ducts (C=9.64 µm; T=13.11 µm). The sublingual gland was not affected in a statistically significant manner. **Conclusions:** methylphenidate produced an increase in cell volume in the treated group. This effect probably occurred because the centrally acting drugs promote hypertrophy of the cells of the salivary glands, it causes retention of saliva within the acinar lumen and little release of the same. The reduction of saliva causes great discomfort, such as difficulty speaking and swallowing, a situation that affects an individual's health and life's quality.

115 Rheumatoid arthritis changes the masticatory capacity, bite force and mandibular movements of the elderly

ANDRADE, K.M.*; ALFENAS, B.F.M.; RODRIGUES, R.C.M.G.

Rheumatoid arthritis (RA) is prevalent in the elderly, probably cause damage to the temporomandibular joint (TMJ) and possibly affect the functions of the stomatognathic system. **Aim:** The aim of this study was to evaluate the chewing function of elderly patients with RA. **Methods:** For this, 24 elderly (mean age 64.4 ± 4.6 years), partially or fully edentulous were selected and divided into 2 groups: with RA and impaired TMJ (n = 12, experimental) and without RA or impaired TMJ (n = 12, control). The diagnosis of TMJ was performed by applying the RDC/TMD. The masticatory performance (MP) was evaluated by sieve method, utilizing a test material based on silicone (Optocal), for measuring the particle size (X50). The maximum bite force (MMF) was evaluated by pressure sensors located on the molar teeth, wherein the voluntary isometric clenching held for 7 seconds. The pattern of mandibular movements (PMM) was evaluated by eletromagnetic method and records were obtained about the maximum amplitude of the mandibular movements. Data were submitted to ANOVA and Tukey test (alfa = 5%). **Results:** Differences were found in the values of MP ($p < 0.05$), MMF ($p < 0.01$), and PMM about the maximum aperture (sagittal), lateral deviation, right laterality ($p < 0.05$), maximum aperture (vertical) and left laterality ($p < 0.01$). It was observed that individuals with RA showed the highest values for the X50 and lower values, PMM and MMB. **Conclusions:** The presence of impaire TMJ in patients with RA reduced the MP, PMM and MMB damaging the chewing function.

116 Relevant characteristics to establishment of confidence in dentist

MOREIRA, K.M.S.*; ALMEIDA, F.A.; IMPARATO, J.C.P.; REIS, J.B.; TEIXEIRA, K.B.; NAVARRO, R.S.; DRUGOWICK, R.M.

Aim: To evaluate the determinants of confidence of guardians of children at the dentist. The study was approved by the Research Ethics Committee of the Faculty São Leopoldo Mandic (CAAE 2012/0059). **Methods:** The sample was a convenience, with participation of 72 guardians of children aged 4-13 years who were present at the participating institutions on collection: UninCor University in the city of Belo Horizonte-MG (capital), Unit of Oral Health in Moema-MG (countryside) and in Várzea da Palma-MG (countryside), also selected for convenience. To collect data, before treatment, we used an interview in a questionnaire which showed sociodemographic data, plus two questions about why they chose the dentist and relevant characteristics of trust in the profession. Data were recorded using SPSS version 17.0, being performed the chi-square test and Fisher's exact test for association analysis, accepting $p<0,05$. **Results:** Most of the interior was interviewed (61.1%) and had a mean age of 34.48 years. Most children (70.8%) attended the consultation accompanied by mothers, 58.3% were male and 51.5% were aged between 4 and 8 years. The reason for choosing the dentist most cited was professional experience (63.9%) and dentist child interaction was the most important characteristic (59.7%) of those responsible for the child patient trust the dentist. The reason for choosing the dentist was associated with the determinants of confidence ($p=0.02$). **Conclusions:** It was concluded that the dentist child interaction is highly relevant for guardians of pediatric patients trust the dentist.

117 Cross-sectional microhardness analysis of bleached enamel exposed to different mouthrinses

Aim: To evaluate, in vitro, the effect of mouthrinses exposure in cross-sectional bleached enamel microhardness. **Methods:** Seventy bovine enamel blocks were divided into seven groups in accordance with treatment (n=10): G1-G6 = bleaching with 35% hydrogen peroxide G1-Periogard Colgate®, G2-Plax Classic Colgate®, G3-Plax Whitening Colgate®, G4-Luminous White Colgate®, G5–Listerine® Tartar Control, G6-Purified water (positive control) and G7- without bleaching and purified water (negative control). The mouthrinse exposure was performed twice a day for 14 days, following manufacturer's instructions. The specimens were stored in artificial saliva during all the experiment. Cross-sectional microhardness analysis were conducted (KHN) with Knoop indenter (load: 25 g / 5 s) in depths of 10, 25, 50, 75 and 100 μm in triplicate. Data was analyzed with ANOVA and Tukey-kramer test ($p<0.05$). **Results:** G1 and G6 did not differ statistically to negative and positive control in the layers 10 and 25 μm; G3 and G5 showed lower microhardness means compared to control bleached or untreated ($p<0.01$). **Conclusions:** Colgate® Plax Whitening and Listerine® Tartar Control decreased the microhardness of bleached enamel, showing mineral loss in depth.

118 Comparison of the digital microscopy and conventional light microscopy in grading of oral epithelial dysplasia

MAFRA, L.S.*; SENA-FILHO, M.; SILVA, A.A.; VARGAS, P.A.; ALMEIDA, O.P.; JORGE, J.

The transition from normal mucosa to invasive carcinoma is a complex and multistep process with multifactorial etiology, where the potentially malignant lesions (PML) has a great relevance. Epithelial dysplasia is considered as the highest risk factor for malignant transformation of PML. The standardization and reproducibility of grading methods has been always contradictory, probably due to the inherent subjective aspects of the grading process. **Aim:** The aim of this study was to compare the digital microscopy with conventional light microscopy in grading of oral epithelial dysplasia, using the grading system proposed by the WHO. **Methods:** Two observers selected 31 cases, including representative cases of all grades of oral epithelial alterations. The cases were subjected to other three observers using alternatively optical or digital methods, with 30-40 days of interval. The process was repeated twice for each system. Before, the cases were evaluated again by each observer, allowing the access to the clinical image in order to get a final diagnosis. Intra and inter observer variations were statically compared. **Results:** It was found that the intra and interobserver variability is similar between conventional light microscopy and digital microscopy. Additionally, the clinical imagepresentation caused an increase of interobserver variability. **Conclusions:** We concluded that the digital microscopy can be used in the grading of oral epithelial dysplasia and displays the same observer variability of conventional microscopy. In addition, the clinical image presentation increases the variability of oral epithelial dysplasia gradation.

119 A programme for removal of oral habits

MAFRA, L.S.*; DELLA-RIVA, L.F.P.; POSSOBON, R.F.

Prolonged sucking habits can alter the normal development of the stomatognathic system, since it can have a negative impact on the orofacial and respiratory health of children. Stopping the habit seems to be a difficult time for some families who often need professional assistance to find an appropriate way to help the child to remove such habits process. **Aim:** The aim of this study was to show the operation of the Program Removal Oral Habits (PROH), hosted by the Research Center and Dental Care for Special Patients - Cepae, Faculty of Dentistry of Piracicaba - UNICAMP, and investigate the success of this program in the interruption of oral habits among its users. **Methods:** In this study, we analyzed 170 children 3-5 years of Cepae patients who had habits pacifier and bottle. These children participated in the PROH, consisting of an initial consultation with a speech therapist and dentist and six telephone contacts with the mother for advice on interruption of habit, with providing practical tips and emotional support. **Results/Conclusion:** The data showed that 88% abandoned the habit, which indicates that the PROH can be an efficient way to help break the habit.

120 Salivary changes in children with hodgkin's lymphoma treated with radiotherapy

LOPES, L.M.; MENDONÇA, R.H.; RODRIGUES, L.P.; NOBRE-DOS-SANTOS, M

Aim: The radiotherapy of cervical region can affect saliva production, resulting in hypossalivation/xerostomia. Among children`s neoplasms that include this treatment, we highlight Hodgkin's lymphoma. We performed a longitudinal investigation of radiotherapy effects on salivary flow rate, pH and buffering capacity of saliva and on quality of life of children with Hodgkin's lymphoma. **Methods:** We collected stimulated and unstimulated saliva and applied the H&N35 questionnaire to 10 children (6-16-years-old), with Hodgkin's lymphoma at baseline, after 1,000 and 2,000 cGy doses, and 1, 2 and 3 months of radiotherapy ends. As a control, it was performed in healthy children. Salivary volume was divided by the collection time to estimate the flow rate. The buffering capacity was evaluated by titration. The questionnaire was interpreted according to EORTC's recommendations. When compared to control, unstimulated flow rate was lower after 1,000 cGy and 1 month. **Results:** A lower stimulated flow rate was observed after 1,000 cGy and 1 month when compared to baseline, with was lower than control. The pH of stimulated saliva was lower after 1 and 3 months and the unstimulated only after 3 months when compared to control. The buffering capacity of both salivas reduced after 2,000 cGy. The volunteers reported a greater intensity of xerostomia and pain after 1,000 and 2,000 cGy. Also, a significant correlation was found among pain, xerostomia and the other variables. **Conclusions:** We concluded that the radiotherapy produced changes in flow rate and buffering capacity of saliva, with impacted the intensity of xerostomia and pain.

121 Teeth displacement of lower implant-retained complete dentures under influence of microwave flask types

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Aim: To evaluate the movement of artificial teeth in the lower protocols processed with two types of microwave flasks (traditional and experimental HH). **Methods:** A standard model mounted on semi-adjustable articulator was used to fabricate metal infrastructure in Co-Cr alloy. The standard protocol of teeth mounts was done on the infrastructure, articulated with a conventional full denture. From this assembly, 20 waxed complete dentures were obtained. Pins were placed in the teeth as a reference for the measurements pre and post-processing of dentures in the incisal edge of the upper and lower central incisors (I), buccal cusp of the upper and lower first premolars (PM), cusps mesiobuccal of the upper and lower second (M). Horizontal distances I-I; PM-PM and MM; anteroposterior (vertical) LI-LM (left incisor to left molar) and RI-RM (right incisor to right molar) were measured with linear optical microscope with an accuracy of 0.0005 mm. The dentures were randomized to polymerization in a microwave oven (n = 10): G1 - Conventional flask and G2 - Experimental flask HH. Acrylic resin in plastic stage were inserted in plastic flasks and processed in a microwave oven (1400 W power, 20 minutes at 20% power and 5 minutes at 60%). **Results:** The results for the conventional flasks showed no teeth movement and no vertical misfit. **Conclusion:** It was concluded that the microwave conventional flasks proved effective in the polymerization without compromising functionally the prostheses.

122 Unusual anatomy of the trajectory of mandibular nerve emerging on accessory foramens on CBCT image: a case report

PERONI, L.V.*; VERNER, F.S.; PEYNEAU, P.D.; AMBROSANO, G.M.B.; ALMEIDA, S.M.

The mandibular nerve and blood vessels runs through the mandibular canal normally emerging on the mental foramen. The correct knowledge of the mandibular nerve pathway anatomy of each individual is a necessary and useful to define safe areas when performing jaws procedures (such as placement of dental implants, mandibular local anesthesia or other surgical procedures in this area). Anatomical studies and case reports introduce us to a number of variations that may be challenging during clinical practice. The adequate preoperative radiological examination in clinical situations shows to be fundamental, especially when close to surgery plan. Although rare, anatomical variations of neurovascular bundles in the jaws have been reported in previous studies, most commonly, in cases of double mental foramina. The aim of this study is to report and discuss a case in which unusual anatomic variations was observed, during routine CBCT exam, in the trajectory of the mandibular canal, which emerged in two retro mandibular foramens, one on each side of the jaw, and a double mental foramen. The advent of CBCT allowed a better viewing of anatomical structures and their possible variations, including location, shape, and relationship with the surrounding area, preventing injury to the neurovascular bundle and enabling an adequate surgical planning in the region.

123 Antimicrobial tests of copaiba oil (Copaifera multijuga) against microorganisms

CARDOSO, L.A.; FERRAZ, F.H.M.; ALECRIM, A.S.; BUSATO, S.N.; BONI, G.C.; ANIBAL, P.C.; MARIANO, P.L.S.; HOFLING, J.F.

Medicinal plants have long been used alternatively in treating diseases through their extracts, oils and bioactive components. Given the prospect of the discovery of these new drugs and active compounds, it becomes of great importance to increase the studies in the field of herbal medicine. In this context, one of the promising plants in the development of new drugs is Copaifera spp, popularly known as "Copaiba", been this plant is traditionally known as a medicinal alternative. **Aim:** The objective of this study was to evaluate the in vitro antifungal and antibacterial activity of Copaiba oil against various species of microorganisms: Streptococcus mutans, Staphylococcus aureus, Pseudomonas aeruginosa, Escherichia coli and Candida albicans. **Methods:** use the technique of microdilution broth (CLSI), whereby the minimal inhibitory concentration (MIC) of the oil was determined. **Results:** The oil was effective in growth inhibition only in the Streptococcus mutans specie a lower in a concentration of 0,031mg / ml. Now antimicrobial activity was delected against the other microorganisms tested. **Conclusions:** In the conclusion, the copaiba oil shows a specific antimicrobial activity against S. mutans in lower concentrations. More studies must take in account with others bacterial species or organisms and cells.

124 Biomechanical analysis of osseointegration in osteoporotic rats treated with sodium alendronate

PALIN, L.P.; OLIVEIRA, D.; RAMALHO-FERREIRA, G.; FAVERANI, L.P.; OLIVEIRA, J.A.; BOTACIN, P.R.; OKAMOTO, T.; OKAMOTO, R.

Aim: To evaluate alendronate effect on osseointegration process after instalation of in osteoporotic rats through biomechanical analysis. **Methods:** The experimental groups are: SHAM (5 rats underwent sham surgery and fed with balanced diet); OVX-ST (5 rats underwent bilateral ovariectomy, fed with low calcium diet and no drug treatment); and OVX-ALE (5 rats underwent bilateral ovariectomy, fed with low calcium diet and treated with alendronate). Two implants were placed: usinade surface, in right tibial metaphysis and double acid attack surface in left tibial metaphysis. Euthanasia of the animals was performed 42 days after surgery by anesthetic overdose. **Results:** Data were submitted to ANOVA test where the variables drug treatment and implant surface were evaluated. The isolated comparison of the variables showed statistically significant differences ($p < 0.01$). In surface treatment, the post Tukey test detected a greater torque to the treated surface compared to usinade ($p = 0.020$, Tukey). In drug therapy, an increased torque was observed with statistical differences between groups Sham-DN ST-OVX ($p < 0.001$), vs. Sham-DN ALE-OVX ($p < 0.001$), with greater torque for Sham-DN in both comparisons and OVX-ALE vs. ST-OVX ($p < 0.01$), with greater torque for OVX-ALE. **Conclusions:** It is concluded that the surface treatment improves the osseointegration process is in homeostatic conditions or in the presence of osteoporosis; and therapy with alendronate improves osseointegration, but lower than the Sham group results.

125 Evaluation of accuracy of measures on cone-beam computed tomography images obtained at different softwares

MORAES,B.A.L.* ; FREITAS,Q.D.* ; VENTORINI,V.T.

Aim: This article aimed to compare the accuracy of linear measurement tools of different commercial software packages. **Methods:** Eight dry mandibles fully edentulous were selected for this study. Incisor, canine, premolar, first molar and second molar regions were selected. Cone beam computed tomography (CBCT) images were obtained with i-CAT Next Generation. Linear bone measurements were performed by one observer in the cross-sectional images using three different software: the XoranCat®™; OnDemand3D®™ and KDIS3D®™, both able to assess DICOM images. The mandibles were sectioned in order to obtain the gold standard for each region. The one-way analysis of variance with post-hoc Dunnett test was used to compare the measurements obtained in each software with the gold standard. **Results:** The less difference between the measurements with the gold standard were obtained with the XoranCAT and KDIS3D (-0.11 and -0.14mm, respectively) and the highest with the OnDemand 3D (+0.25mm). However, no statistical significant differences were observed between the measurements obtained with the different software with the gold standard ($P>0.05$). **Conclusions:** In conclusion, preoperative bone measurement does not depend on the software used to reconstruct the image from CBCT DICOM data.

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Removed

127 Regenerative treatment for peri-implantitis. Case report.

TAVARES, L.J*; NICOLI, L.G.; MARCANTONIO, C.; PAULA, L.G.F.; ZANDIM-BARCELOS, D.L.

The use of oral dental implants for oral rehabilitation is widely accepted treatment modality with high success and predictability. However, remains susceptible to inflammatory diseases. The peri-implantitis is defined as an inflammatory process that affects the tissues around dental implants, resulting in loss of bone supporting the implant. The objective of this study is to report the surgical protocol, clinical and radiographic follow-up of treatment of peri-implantitis in an implant that was due for more than 15 years.

128 Use of angled dental implants and maxillo-mandibular position optimization: Clinical case of bimaxilary protocol with 3 implants

FIGUEIREDO, L.A.A.; CORRADINI, G.F.; AGUILA, L.R.; MICELLI, A.L.P.; VALENGA S.; FERNANDES, J.P.S.; SILVA, W.A.B.; SILVA, F.A.

The dental implants are among the greatest advances in dentistry today, promoting patient rehabilitation of masticatory function. However, this type of treatment may be hampered by the use of inadequate and misfitting dentures, with long use, may cause pathological reabsorption of maxillary and change in maxilla-mandibular relationship which complicates the determination of an appropriate treatment plan and the installation of bone-integrated implants. In addition, many atrophic maxilla present anatomical limitations which prevent correct positioning of the implants according to the Branemark protocol, which prioritizes the placement of implants vertical and parallel to each other. On the other hand, in cases of inadequate prostheses with regard to relations maxillo-mandibular and consequently condyle articular, the planning becomes complex, considering that such references should be restored through use of flat occlusal appliances. The objective of this study is to report through a clinical case, the pre-surgical planning and prosthetic rehabilitation of an edentulous patient with severe maxillary atrophy and signs and symptoms of functional alterations of the masticatory system through fixed implant-supported denture bimaxillary whose distal implants were tilted in order to reduce the extent of the cantilevers.

129 Dentin bond strength using different conditioning treatments

SEBOLD, M.*; GIANNINI, M.; ANDRÉ, C. B.

Aim: The present study aimed to evaluate the dentin bond strength of a composire resin using different conditioning techniques. **Methods:** Twenty-four third molars had the oclusal enamel removed with a diamond disc to expose the dentin surface, which was abraded with a SiC abrasive paper (grit #600). Afterwards, the teeth were randomly divided into 3 experimental groups (n=8): 37% phosphoric acid etching (15 s), EDTA 0.1 M (60 s) and EDTA 0.5 M (120 s). The adhesive (XP Bond, Dentsply) was applied and three increments of resin composite (EsthetX, Dentsply) of 2 mm each were placed on dentin surface. Each increment was photoactivated individually. The restored teeth were transversally sectioned in order to obtain specimens for the micro-tensile test (with 1 mm2 at transversal section) and then stored for 24 hours in artificial saliva. The specimens were tested in a universal testing machine (EZ Test, Shimadzu). The data was analyzed by ANOVA and The Tukey test (5%). **Results:** The bond strength results were (in MPa): 37% phosphoric acid: 37.3 (7.7)a; EDTA 0.1 M: 14.7 (7.3)c; EDTA 0.5 M: 25.1 (7.7)b. **Conclusions:** Regardless the concentration, the dentin conditioning with EDTA resulted in lower bond strength when compared to phosphoric acid etching.

130 Condition of oral health in a cohort of adults in Piracicaba

SILVA-JUNIOR, M.F.*; SOUZA, A.C.C.; BATISTA, M.J.; SOUSA, M.L.R.

Aim: Investigate condition of the oral health of an adult population in a broad age-range. **Methods:** Examined 248 adults in the age-range between 20 and 64 years, representative of the adult population in the municipality of Piracicaba-SP. Socioeconomic and demographic data were collected by means of a questionnaire, and clinical oral exams were performed in accordance with the World Health Organization criteria for oral diseases, use and need for dental prostheses. Descriptive analyzes were performed, stratified be age groups from 20 to 44 years, and 45 to 64 years. **Results:** The majority of the participants were of the female sex between 45 and 64 years of age. As regards years of schooling, 54.8% had at least a high school educational level, and monthly income between R$ 545,00 and R$1090,00 reais. The DMFT was 20.37, differing between the age groups, particularly the missing tooth component with a mean of 3.34 among young adults, and P=13.41 among older adults. The prevalence of adults with periodontal pockets exceeding 4 mm was 20.5% among young adults and 53.0% among older adults. As regards the need for dental prostheses, 37.8% wore a denture in one arch, but needed a denture for the other arch, and 20.9% needed dentures in both arches. **Conclusions:** The oral health differed between the age groups in the population studied with regard to caries experience and periodontal disease. Oral health promotion strategies must consider the age of the target population and its prosthetic needs when planning dental services.

131 AP relationship of the maxillary central incisors to the forehead in the class II profile attractiveness

VALERIO, M.V.*; MENDES, L.M.; JANSON, G.

Aim: The aim of this study was to relate the anteroposterior position of the maxillary central incisors in relation to the forehead (Element II - 6 Elements Philosophy) with the class II profile attractiveness. **Methods:** The sample consists of lateral teleradiographs, lateral photographs (overlapping) and the attractiveness data taken from the Orthodontics file of the Bauru School of Dentistry, USP. 61 patients with initial complete bilateral Division 1 Class II malocclusion were treated and divided into three groups according to the treatment protocol: XP0, formed by patients treated without extraction; XP2, by treated with extraction of 2 premolars and XP4, by treated with extraction of 4 premolars. The groups were compatible in age, gender and Objective Grading System (OGS) index in post-treatment time. The measurements were made in Adobe Photoshop CS5 program considering the points of the forehead, Trichion, Superion, Glabella and their projections in the lower third of the face. **Results:** The anteroposterior position of the incisors in relation to the forehead was similar in the three groups of this study. **Conclusions:** Although the XP2 group presents more attractiveness in relation to others groups, XP0 XP4, cephalometric evaluation of Element II did not detect statistical differences between them.

132 Vascular endothelial growth factor is upregulated in malignant salivary gland tumors

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Aim: To investigate the immunoexpression of vascular endothelial growth factor (VEGF) in benign and malignant salivary gland tumors (SGT) determining its clinical and prognostic significance. **Methods:** A total of 132 formalin-fixed, paraffin-embedded SGTs were organized in tissue microarray blocks and submitted to immunohistochemistry against VEGF protein. Slides were then scanned and the immunoreactions analyzed using Pixelcount V9 digital algorithm. Clinical and follow-up data were retrieved from patients' medical charts. **Results**: Tumors included 50 cases of pleomorphic adenoma, 32 mucoepidermoid carcinomas, 30 adenocarcinomas not otherwise specified and 20 adenoid cystic carcinomas. A slight male preponderance was found (M:F ratio 1.1:1.0), with a mean age of 47.5 years. Parotid gland was the most affected location. VEGF expression was found in the cytoplasm of all cases analyzed with variable distribution. A significant correlation of VEGF reactivity was found only with age, with no further significant association with other clinicopathological parameters. Age and presence of paresthesia were the only features that predicted an inferior specific survival rate under uni and multivariate analyses. Log-rank test evidenced VEGF high expression as a potential determinant of inferior survival, although it was not possible to reach a statistical significance. **Conclusions**: Considering VEGF overexpression in malignant tumors and its potential association with an inferior survival rate, it can be speculated that this protein might be associated with SGTs pathogenesis and aggressiveness.

133 Microwave oven - A particular anthropologic skill in a carbonized body

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The carbonized corpses expertise is part of the routine of Forensic Anthropology services all over the world. In Rio de Janeiro, the delinquents developed a specific form of execution and/or concealment of the bodies of the victims, popularly called "microwave", where the victim, alive or dead, is shrouded in tires, for then, be set on fire. The authors propose to present a clinic case where the application of anthropological expertise techniques offers important results for the police investigation. After the maceration of all content received and the consequent reduction to skeletal remains, it became possible the verification that it was a male person, the estimated age to be between 25 and 30 years, who died less than one month ago, bringing signs of perfurocontundente and cortocontundente actions on the skull which indicated the probable cause of death. The thermal action, in the microwave form, was applied over the corpse, thus constituting an attempt to concealment and destruction of the same. Due of partial destruction wasn't possible to estimate the stature and the ancestry. The corpse brought a variation of the bilateral mandibular condyles that can collaborate at the identification in case if it exist any antemortem documents. The identification can be obtained through the dental or genetics characteristics. The inquiry represents a police investigation, where many type of professionals, of many specialties, are involved. The anthropological skill has the ability to obtain a wide range of information from human remains, constituting an essential part of the test of carbonized bodies.

134 Influence of grape seed extract into dental adhesive on degree of conversion and bond strength of an adhesive system

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Aim: This study aimed to investigate the effect of grape seed extract incorporated into dental adhesive on degree of conversion and bond strength of an adhesive system. **Methods:** A three-step etch-and-rinse adhesive system was tested and 0, 1, or 2 wt% of grape seed extract was added to the primer. Degree of conversion (n = 5) was measured using an infrared spectrometer. The occlusal surface of 21 sound human molars was grounded to expose a flat medium dentin surface formicrotensile bond strength (n = 7). The adhesive protocol was performed according to manufacturer and two increments of 2 mm were carried out with a microhybrid composite resin. After 24 h, specimens were tested using universal testing machine at crosshead speed of 0.5 mm/min until failure. The Data were statistically analyzed by ANOVA (alfa = 0.05). **Results:** There was no significant difference between the adhesive system with or without grape seed extract ($p > 0.05$). **Conclusions:** The incorporation of GSE could increase clinical longevity of dental restorations without affecting the properties of the adhesive system.

135 Trigger points and acupuncture: clinical case

MARQUES, L.; GRILLO, C.M.; SOUSA, M.L.R.S.

Trigger points are as sensitive points in muscles, where the tissue felt stiffer to the touch than the surrounding tissues. These points are highly irritable and limit the amplitude of stretching, lead to weakness without atrophy and no definite cause. Acupuncture is the body of knowledge of traditional Chinese medicine, with the aims of providing therapy and cure of diseases by means of inserting needles at specific anatomical points (acupoints). There are many similarities between trigger points and acupoints, especially the coincidence in location. The objective of this study was to report the treatment of a patient diagnosed with myofascial pain treated with acupuncture. After anamnesis and clinical examination, muscle palpation revealed that the patient had sore spots in the posterior temporal muscle coincident with the acupuncture point Gallbladder 20 (VB20), and other points, called Ah-Shi points. Treatment was instituted with traditional acupuncture, in one session per week, lasting 20 minutes, using local points (VB20, TA17 and ID19 and Ah-Shi points), and the distal point (VB43). Pain intensity was measured using the Visual Analog Scale (VAS) at baseline and at the end of the session, denominated VASi and VASf respectively. At the end of the initial session, pain intensity ceased (Vasi and VASf = 8 = 0). There were four sessions of acupuncture (Vasi = 0), but the patient reported isolated states of pain in this range. The VB20 point coincided with a trigger point, and in this case report, the selected acupoints were effective in pain management.

136 Self-perception of oral health by long-living elders

MILAGRES, C. S.*; TORRES, L.H.N.; SOUSA, M.L.R.

Aim: To characterize the self-perception of long-living elders in the municipalities of Campinas (SP), Belém (PA), Parnaíba (PI), Poços de Caldas (MG), subdistrict of Ermelino Matarazzo (SP) and Ivotí (RS). **Methods:** This was a multicentric, transverse study conducted with data contained in the electronic data base of "Projeto FIBRA". The total sample consisted of 3075 individuals of both sexes with age >65 years in the period between 2008 and 2009. Elderly were recruited at home and submitted to a single data collection session on oral-health self-perception Age group were divided into up to 80 years, and 80 years and over. The Chi-square test was used for comparison between frequencies of categorical variables, adopting a level of significance of $p<0.05$. **Results:** In this study, 445 long-living elders participated, representing 14.47% of all individuals studied. Long-living-elders self-perceived negative impact of oral health and functional conditions for eating, in absence of natural teeth ($p<0.01$), use of dental prostheses ($p=0.04$) and difficulty or pain to chew hard food ($p=0.04$). **Conclusions:** This study broadened the scope of knowledge about relations between longevity and self-perception of oral health in elders, as it presents distinct results between long-living elders and other elders studied. Oral health may interfere in the elder's performance in the natural process of aging, mainly when there are associations with functional conditions of eating, and impact of these on the population. This is relevant for planning initiatives and public health programs specifically for this age group.

137 Influence of photoactivation mode on the properties of luting agents used for indirect restarations cementation

MAINARDI, M.C.A.J.*; ALVES, K.B.; LIMA, D.A.N.L.; MARCHI, G.M.; AMBROSANO, G.M.B.; AGUIAR, F.H.B.; GIORGI, M.C.C.

Aim: To evaluate the influence of photoactivation on the properties of luting agents used for indirect restorations cementation. **Methods:** Luting agents (RelyX ARC and Z350) were inserted in a matrix under ceramic discs (1 or 2 mm) or a glass slide (control) and were submitted to the following photoactivation modes: Halogen (XL), LED in "Standard" (S), or "Plasma Emulation" mode (PE), all of them delivering 19 J/cm^2 of energy. The initial and final (after immersion in ethanol for 24 hours) microhardness (n=5) were measured at the top surface. Sorption and solubility (n=5) were obtained until the mass of the polymer kept stable by measuring m1, m2 and m3. Data of microhardness were submitted to PROC MIXED and Tukey Krumer ($p < 0,05$). Data of sorption and solubility were submitted to ANOVA and Tukey test ($p < 0,05$). **Results:** For RelyX the XL mode obtained the highest value of initial microharness than S and PE under 1 mm of ceramic and after the immersion in ethanol. RelyX showed high sorption and solubility values when photoactivated under the glass slide. The luting agent Z350 showed high values of microhardness under 1 mm for XL mode and after immersion in ethanol. For sorption and solubility there were not statistical differences among the factors at all conditions. **Conclusions:** The fotoactivation mode and the interposed material affected the microhadness for both luting agents and the sortion and solubility for the dual-cured resin cement.

138 Deciduous ankylosed molars – a case report

CAMPAGNOLO, M.C.B*; OLTRAMARI-NAVARRO, P.V; PUNHAGUI, M.

Dental ankylosis is defined by anatomical fusion of cementum and/or dentin to the alveolar bone. Although there are several theories for this event, its etiology factors still have been unclear. There are several case reports in the Literature regarding this patology, even in primary or in permanent teeth, being the deciduous molar the most affected temporary tooth. Depending on the severity, which can be mild, moderate or severe, the dental ankylosis can jeopardize the child dental occlusion. The impaired occlusion associated with the loss of space are examples of problems arising from this abnormality. Therapeutic options vary depending on the severity of each case, and could be a occlusal restoration until a surgical treatment. Thus, this study aimed at reviewing the Literature regarding the main aspects related to ankylosis of deciduous molars and to relate three clinical cases of patients treated at Londrina State University.

139 The use of guided surgery in rehabilitations with full arch fixed bridges implant-supported

CAMPAGNOLO, M.C.B*; ZAMPONI, M.; PENTEADO, M. M.; ARCHANGELO, K.C.; CORRÊA, G.O.

The evolution of diagnostic imaging procedures opened the way for a range of new procedures in all areas of dentistry. This paper aims to present a clinical case of Branemark protocol type, where the surgical and prosthetic procedures were performed quickly and safely, with low morbidity and high patient satisfaction. A guided surgery for the installation of dental implants is a minimally invasive procedure to secure accuracy rate and success rate similar to the conventional technique. As this is a planned surgery in specific software using three-dimensional tomographic imaging, allows the surgeon to schedule surgery as well as implementation of the prosthesis in a virtual viewing noble structures favoring the placement of implant sand screws in the emergence of future prosthesis. Because it is a low morbidity surgical patient recovery is favored and when to run followed the precepts of immediate loading can perform the installation of temporary or definitive prosthesis immediately after surgery as published by Thomé G. et al, 2007 and E. Moreschi et al, 2011. The guided surgery is a rapid procedure with low morbidity and provides significant reduction in patient discomfort, both during surgery and postoperatively. Enables the professional program in advance the prosthetic components to be used thus promoting aesthetics and biomechanics of the prosthesis.

140 Effectiveness of the desensitizing before dental bleaching in the reduction of the dental sensitivity

CAMPAGNOLO, M.C.B.*; ARCHANGELO, K.C.; PENTEADO, M. M.; CORRÊA, G.O.

Aim: This study aims to evaluate the dental sensibility using a Potassium Nitrate, Sodium Fluoride and "cavalinha" desensitizing. **Methods:** Using pre-established criteria, fourteen patients were aleatory separated in two groups (n=7): G1- Hydrogen peroxide 25% and G2 – Hydrogen peroxide 35%. Initially, a silicon guide was made to mensure the color using VITA Easyshade (Vita Zhanfabrik, Germany). All patients were submited to two clinical sessions lasting 45 minutes each using the desensitizing in the right hemi-arch for 10 minutes, and one week of break between these clinical sessions. **Results:** After fourteen days of the end of the treatment, the final measure of the color was made using the same system. **Conclusions:** There wasn't significant difference related to a sensitivity between the hemi arch and between the different bleaching gels concentrations.

141 Micromorphological evaluation of teeth exposed to head and neck radiotherapy

PAGLIONI, M.P.; SILVA, W.G.; RIBEIRO, A.C.; MARQUES, M.R.; LOPES, M.A.; GOES, M.F.; SANTOS-SILVA A.R.

Radiation-Related Caries (RRC), also known as "radiation caries" is a severe oral toxicity that affects cancer patients who have undergone radiotherapy (RDT) in the head and neck area. Although mainly attributed to the indirect effects of RDT, such as hyposalivation, RRC is also associated with direct effects of radiation on the enamel, dentin and dental pulp. **Aim:** Therefore, the aim of this study was to test the null hypothesis that RDT is not able to generate direct damage to the micromorphological components of inorganic and organic matrix of teeth from patients with head and neck cancer (HNC). **Methods:** A total of 39 samples, including 22 teeth that received in vivo RDT and 17 teeth from non-irradiated patients with HNC were grouped into two experimental groups that evaluated ground sections (experimental group I) and histological sections prepared by demineralization (experimental group II).The teeth were avalueted for preservation of the micromorphological components of dental tissue. **Results**: Was observed structural preservation of all micromorphological components analyzed.It was not possible to identify significant differences between irradiated and non-irradiated specimens in any of the experiments performed. **Conclusions:** The null hypothesis was not rejected and the results of this study suggest that direct effects of RDT are not able to generate radiogenic destruction of inorganic or organic matrix of teeth of HNC patients. The direct effects of RDT on the dental tissues may not contribute to the onset and progression of RRC.

142 Influence of delayed scanning in images obtained with two different storage phosphor plates digital systems

SUAREZ, M.A.; NASCIMENTO, H.A.R.; VICONTI, M.A.P.G.; FERREIRA, L.M.; FREITAS, D.Q.

Aim: To evaluate the influence of delayed scanning of images obtained with two different PSPs digital systems and the diagnostic accuracy of vertical root fractures (VRF), by objective and subjective analyses. **Methods:** 40 single-rooted human teeth, 20 without and 20 with VRF induced in a universal testing machine was used. The 40 teeth were radiographed in two digital systems, Vistascan® and Express®, and the plates were scanned immediately and 30 min, 2 and 4 hours after the exposure. An aluminium (Al) wedge was used to evaluate the change in mean grey values for scan delays. Three observers evaluated all images for the diagnosis of the VRFs and 25% of the sample was reavaluated after thirty days. **Results:** The intra and interobserver reproducibility ranged from moderate to substantial and fair to moderate, respectively. Analysis of variance showed no significant difference between the different scan delays in sensitivity, specificity and accuracy; however, there were differences in the area under the ROC curve, with the time 4 hours showing lower values compared to the others. For objective analysis, analysis of variance showed statistical difference between the different times of scanning in the two systems, except in the times 30 min and 2 h in VistaScan digital system. **Conclusions:** Delayed scanning caused change of image density in both systems studied, but did not interfere in the diagnosis of vertical root fracture, except for 4 hours; therefore, the wait time of 4 hours for scanning PSPs should be avoided.

143 Discoloration of a composite resin restoration by extrinsic pigmentation: a case report

ZECZKOWSKI, M.*; PÚBLIO, J.C.; LIMA, M.O;AGUIAR F.H.B.; LIMA, D.A.N.L.

One of the greatest causes of patient dissatisfaction is the discoloration of composite resin restorations over time, which may be related to different factors such as intrinsic and extrinsic pigmentation caused by foods with dyes, some medicaments and poor hygiene. The aim of this case report was to show what care should be taken in composite resin restorations procedure with a view to prevent its color change at the end of restorative treatment. Through the case reports of a composite resin restoration on posterior teeth which after it is conclusion suffered pigmentation due to food colorants, in this case, from a beet. This color change in composite materials may occur mainly after the end of the restorative procedure because the resin composite is still not fully cured, so it is important to choose good restorative material and have an appropriate polymerization, to avoid the discoloration of the composite resin. Once the color change was observed, polishing procedures were conducted, with fine and extra fine diamond burs and abrasive rubber which allowed the removal of all superficial pigmentation. After one year follow up, the restoration still presented satisfactory result as regards it is color. Although it was possible to remove the pigmentation of the restoration, it is important to avoid substances with dyes for 48 hours after the restoration procedure to prevent the discoloration of composite resins.

144 A pilot study on stromal myofibroblasts in tongue squamous cell carcinoma of young patients

AZEVEDO, M.B.*; FONSECA, F.P.; COLETTA, R.D.; RIBEIRO, A.C.P.; SOUBHIA, A.M.P.; LOPES, M.A.; SANTOS-SILVA, A.R.

Aim/Methods: Oral squamous cell carcinoma (OSCC) in young people is poorly understood from a scientific standpoint. Conversely, the involvement of stromal myofibroblasts has been described as central to the tumor biology of OSCCs. Considering the fact that the association of myofibroblasts in oral OSCCs of young patiens was never investigated, the current study evaluated the presence of myofibroblasts in the stroma of OSCC in youngsters, aiming to compare the immunohistochemical detection of myofibroblasts and the cellular DNA content between young and old. **Results/Conclusions:** There was no significant difference between the myofibroblastic stromal component (or the DNA content of tumours) of OSCC affecting young and older patients. Therefore, myofibroblasts may be not responsible for the biological behavior of OSCC in young people.

145 Health education as a strategy for the promotion of oral health in pregnancy

GRANDE, M.F.B.*; QUELUZ, D.P.

Oral health, general health an integral part of individuals, set up of prime importance for the population to master the basic knowledge aiming at the promotion, prevention and rehabilitation of health. To promote the oral health of pregnant women, focusing on the importance of oral health during pregnancy, physiological, oral physical changes, nutrition, dental consultations. Pregnancy is the time when the woman shows receptive to changes and information processing that can be reversed for the benefit of the baby. Thus, maternal attitudes and choices certainly reflect in the development and delivery of a healthy baby. In this sense, educational and preventive actions with pregnant women become crucial for the mother to take care of your oral health and can introduce good habits from the beginning of the child's life. A pregnant woman should always be attended to seek assistance. However, it is necessary to develop professional activities encouraging them through a broader insight into the possibility of treatment and the significance of chronic conditions while aggravations to oral health factors during pregnancy. We conclude the great importance of the mother have access to information necessary for successful pregnancy elapses, tranquility, naturally; avoiding general and oral complications during pregnancy through informed and confident women.

146 Effect of the direction of the electric current in the application of adhesive systems to dentin

GUARDA M.B.*; NIZO, P.T; VITTI, R.P.; SINHORETI, M.A.C.; CONSANI, S.

Aim: Was to evaluate the effect of two-way electrical currents acting through the dentin sealing and bonding strength and nanoleakage of conventional and self etching adhesives in samples stored for 24 and 4 months. **Methods:** Two self-etching adhesives (Clearfil SE Bond, Kuraray and Universal Single Bond, 3M ESPE) and a conventional (Single Bond 2, 3M ESPE) were used. Were applied under a current of 35μA in two directions and through a LED irradiance of 800mW/cm2 (Ultralume 5, Ultradent Products, South Jordan, UT, USA). Blocks were made on dentin using Filtek Z350 XT (3M ESPE). Samples were cut and stored in distilled water at 37 ° C at the times mentioned, and then brought to a universal testing machine (Instron 4411) for microtensile bond strength test at a speed of 0.5 mm / min. Fracture patterns were analyzed. Sections were made for evaluation nanoleakage SEM. Values were subjected to ANOVA and means were compared by Tukey test. **Results:** No differences in bond strength both in the normal direction, as the inverse of the current. All materials showed resistance values similar bonded. Storage for 4 months was not enough to decrease the bond strength. **Conclusions:** We conclude that the reversal of polarity that value does not change the bond strength.

147 Full rehabilitation of the maxilla and partial of the mandible with endosseous dental implantation

PROVINCIATTI, M.M.*; MUGLIA, V.A.

The aim of illustrating the application of dental implants within extensive oral rehabilitation will be presented in which the patient sought dental care in order to solve the lower total partial upper dental extraction and fixed prostheses, abandoning the initial rehabilitation made by other professionals based removable prostheses. The X-ray, CT scans and models confirmed the conditions previously found during clinical examination, compatible with tooth loss occurred at different times and with significant intervals. In seeking to meet the requests of the same planning developed included the maintenance of the remaining teeth in the lower jaw (in total six natural teeth remained, these being the lower left canine to the lower right canine) and installation of implants with internal conical connection (Ankylos, Dentsplay) in the maxilla and mandible. For seven jaw implants, one on anterior to reduce the size of the pontic and the rest evenly divided in the posterior region hemiarcadas region were installed. As the jaw eight implants were used to replace each missing dental unit. Completed surgical step and osseointegration period, a higher fixed prosthesis with metal infrastructure and aesthetic coverage ceramic was made in the lower arch and individual crowns in ceramic completed treatment. The case in question has two years of monitoring, where the integration of rehabilitation to pre-existing oral conditions is seen by the contours of prosthetic maintenance of structures and preservation of bone tissue around the implants, even going a considerable period of their anchors.

148 Assessment of mandibular bone quality and correlation with impacted third / semi-impacted molars: a study by computed tomography

ALONSO, M.B.C.C.; DAL PICOLO, M.Z.T.; VASCONCELOS V.; WATANABE, P.C.A.; FREITAS, D.Q.

Biomechanical studies support the hypothesis that the increased risk of mandibular angle fracture is associated with the presence of third molars (3 Ms); although there is still controversy in the literature regarding this issue. **Aim**: The objective of this study was to analyze the mandibular bone quality in the presence and absence of 3Ms, through panoramic radiography (PR) and cone beam computed tomography (CBCT), verifying if the presence of teeth and their position could influence the bone quality at the region. **Methods:** The PRs of patients of both sexs, aged between 18 to and 25 years were evaluated and the measurements of mandibular inferior cortical thickness of both sides in the angle region and the region 0.5 cm distal to the 2nd molar were obtained. The 3Ms were classified according to their position: vertical, horizontal or angulated. In CBCT images, the same measurements were obtained in the parasagittal views. **Results:** The t test showed significant differences ($p < 0.05$) between PR and CBCT; the highest values were found in CBCT images. Considering the presence of 3Ms, the bone thickness was higher in the angle region in RP only, while the position did not influence the measurements (ANOVA and post hoc Tukey test). Low correlation between measurements obtained in the imaging modalities and evaluated regions were found. The ICC was excellent. **Conclusions:** It can be concluded that the presence of the 3Ms and its position did not alter the mandibular bone quality.

149 Influence of an incentive breastfeeding program on formal employees women

GOMEZ, M.S.*; BURATTI, J.; BRASILEIRO, A.A.; AMBROSANO, G.M.B.; POSSOBON, R.F.

Aim: Investigate if the participation in incentive breastfeeding program helps prevent early weaning among formal employment mothers. **Methods:** A survey was done with 200 formal workers who had children younger than 12 months, participants and non-participants of an incentive breastfeeding program. It is a non-randomized intervention study. **Results:** The two groups differed significantly with respect to mother's education, father's age, primiparity, type of delivery, duration of breastfeeding and staying in rooming-in. The results showed that there was statistical difference in rates of exclusive breastfeeding ($p < 0.0001$) and breastfeeding ($p < 0.0001$). In the bivariate analysis, it was found that the maintenance of exclusive breastfeeding beyond 4 months of life was influenced by participation in the program, offering breast milk in glass, which did not provide infant formula in the bottle and breastfed during the workday. Multiple logistic regression analysis indicated that mothers who did not participate in the program had 8.84 (CI: 2.11 to 37.11) times more likely to wean before 4 months. Mothers who did not breastfeed their children during the workday were 4.98 (CI: 1.27 to 19.61) times more likely to wean them. Children who received infant formula in the bottle were 46.5 (CI: 5.56 to 388.8) times more likely to be weaned. **Conclusions:** This study suggests that formal employees that participate of an incentive breastfeeding program tend to keep this practice any longer, exclusively or not.

150 Use of Pacifier and bottle among anxious mothers' babies

GOMEZ, M.S.*; BURATTI, J.; CARRASCOZA, K.C.; POSSOBON, R.F.

Aim: Investigate the association between anxiety symptoms presented for 120 mothers participating in the Incentive Group of Exclusive Breastfeeding (GIAME-Cepae-FOP-Unicamp) and oral habits in the first six months of the child's life. **Methods:** An interview and application of the Beck Anxiety Inventory was held at the 30th and 180th day after birth to investigate presence / severity of anxiety symptoms. Three categories of change in anxiety level between the 1st and 2nd application of Beck were defined: 'decreasing', 'constant' and 'increasing' **Results:** At 6 months, 23% of children has used pacifier and 36% has used bottle. Mothers who demonstrated “increasing” anxiety, “constant” and “decreasing” has offered pacifiers to the baby in 39%, 22% and 21% respectively. The introduction of the bottle has occurred predominantly in 1st (37%) and 5th month (23%) of life (related to the mother's return to work). **Conclusions:** The data show the influence of maternal anxiety, especially about pacifier use, and the importance of monitoring by the health team, the emotional condition of the mother, in order to prevent the introduction of habits.

151 Effects of ceramic thickness and temperature in ultimate tensile strength and Knoop microhardness of lutting agents.

LIMA, M.O.*; CATELAN, A.; LIMA, D.A.N.L.; MARCHI, G.M.; AGUIAR, F.H.B.

Ceramic restorations are an interesting alternative treatment in cases where aesthetic factor is predominant, as long as they are properly attached to the dental tissues. To promote the union between the prosthetic piece and the tooth structure the use of a fixing agent is required, and it has been suggested that the increase on the temperature can improve the properties of these materials. **Aim:** Thus, the aim of this study was to evaluate the influence of different handling temperatures and different ceramic thickness used for indirect photoactivation, in the properties of luting agents. **Methods:** For this, the luting agents (RelyX Arc - 3M/ESPE; RelyX Ultimate - 3M/ESPE; RelyX Veneer - 3M/ESPE and Filtek Z350 Flow - 3M/ESPE) were handled with different temperatures (23ºC or 54ºC), placed in specific matrices and light cured through ceramic discs of lithium disilicate with thicknesses of 0.75 or 1.5 mm. After preparation of the samples, Knoop microhardness and ultimate tensile strength tests were performed. The results were subjected to statistical analysis. **Results/Conclusions:** Both products showed higher KH when smaller thicknesses of ceramic were used. No significant difference in UTS and KH was noted between the temperatures.

152 Ultrasound elastography strain ratio of upper trapezius myofascial trigger points in women during chronic pain treatment

MÜLLER, C.E.E.*; ARANHA, M.F.M.; GAVIÃO, M.B.D.

Aim: To evaluate upper trapezius myofascial trigger points (MTrP) through ultrasound elastography (UE) elastograms and strain ratio (SR) in women with myofascial pain syndrome (MPS) and chronic pain complaints during electroacupuncture (EA) and acupuncture (AC) treatment. **Methods:** A double-blinded randomized controlled pilot study was conducted including 24 women, aged between 20 and 40 years (27.33±5.05 years), body mass index from 18.03 to 27.59 Kg/m^2 (22.59±3.11), presenting regular menstrual cycle, local or referred pain for up to six months and at least one active MTrP at both right and left trapezius (RTPz, LTPz). Eight treatment sessions where scheduled, twice a week, along 24 to 26 days, being gallbladder meridian 20 (GB20), gallbladder meridian 21 (GB21), large intestine four (LI4), liver meridian three (LV3) and up to two ashi points in each upper trapezius needled. Intensity of pain was assessed by visual analogue scale (VAS) and SR by UE. **Results:** Pain intensity significantly decreased in AC group (general, $P<0.001$) and EA group (general, $P=0.027$; RTPz, $P<0.001$; LTPz, $P=0.005$). Concerning UE, RTPz and LTPz post-treatment SR were lower than the beginning for EA and AC groups, and higher for SHAM group. Within groups, comparison did not identify significant differences for the tested variables. **Conclusions:** EA and AC were effective in pain itensity management suggesting additional local effects of EA. UE suggests effectiveness in MTrP and surrounding tissue characterization, pointing to the possibility of objective confirmation of subjective therapeutic effects of EA and AC in MPS and chronic pain treatment.

153 Detorque and vertical misfit under simulation of masticatory conditions with different misfit levels

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Aim: To evaluate screw loosening and vertical misfit for one-piece cast multiple implant-supported frameworks at two fit situations subjected to cyclic loading. **Methods:** Ten frameworks were casted in commercially pure titanium simulating bars for mandibular complete fixed prostheses. Two levels of fit were created to obtain experimental groups: passive fit (P); non-passive fit (NP). At initial time, the loosening torque of the prosthetic (PS) and mini abutment (MAS) screws were measured 24 hours after the tightening torque (10 Ncm and 20 Ncm, respectively) using a digital torquemeter. The vertical misfit was quantified using an optical microscope by the single-screw test. The analyses were performed before and after cyclic loading. The results were statistically analyzed by Mann-Whitney and Wilcoxon tests (alfa=0.05) and Pearson correlation test. **Results:** Cyclic loading influenced the MAS loosening torque ($p = 0.0011$) in non-passive group. By contrast, prosthetic screw loosening and misfit values were not influenced by mechanical cycling. The P group showed higher values of PS loosening torque at initial time than NP group ($p = 0.03$). There was correlation between misfit and PS loosening torque ($r = -0.49$; $p = 0.0011$). No correlation was observed between misfit and MAS loosening torque. One year of masticatory simulation by cyclic loading has no influence on prosthetic and abutment screw loosening, and also on vertical misfit of passive fit frameworks. However, it increases abutment screw loosening torque for non-passive ones. **Conclusions:** Passive frameworks present higher prosthetic loosening torque. Ill-fitting prosthesis leads to screw loosening with greater facility

154 Piperine solution: effective concentration to promote nociception in Temporomandibular Joint and its use in female rats

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Aim: To develop an animal model of orofacial pain in temporomandibular joint region in females Wistar rats using different concentrations of piperine in order to determinate its minimum effective concentration to induce nociception. **Methods:** Forty eight Wistar female rats were randomly divided in six groups (n=8), that received an injection in the right TMJ region of 30 µl of one of the following solutions: control group – ethyl alcohol, Tween 80, sterile saline and the other experimental groups: 1; 2; 3; 4 or 5 µg of piperine diluted in 100 ml of ethyl alcohol, Tween 80, sterile saline. The rats had their hormonal cycle analyzed and the animals in diestrous cycle were immediately evaluated for the nociceptive behavior, after the injection of one of the solutions. The data were submitted to the one-way ANOVA and Tukey-Kramer´s test (post-hoc, $P<0.05$). **Results:** The higher means (±SE) for time (seconds) of orofacial rubbing were gotten in groups II (100.37 ± 30.42) and V (100 ± 27.82);for the head flinches, the highest mean was in group III (44.87 ± 4.76); finally, the highest mean for the sum of both behavior was gotten in group II (130.87 ± 27.53) with significant difference when comparing with the control group. **Conclusions:** The results suggest that induced pain in the TMJ region with 0,02 µg/ml has been proved to be the minimum effective concentration to cause pain in this region and also it can be used as a valuable model in the study of orofacial pain.

155 Child nutrition related to oral conditions

SAMPAIO, S.N.*; QUELUZ, D.

Studies report association between diet and nutritional status by influencing the immediate future of the child oral conditions. The aim is to present relationships between diet, nutritional status and oral health of patients. Nutritional status can affect the teeth during their training period and after eruption in the oral cavity. In case of malnutrition, we observe great potential for enamel hypoplasia, changes in salivary glands, dental demineralization, delayed eruption and exfoliation of the deciduous teeth. There are also oral diseases caused by food with great potential cariogenic, which increases the number of and coronal destruction; foods with detergent property; acidic foods like citrus juices, which cause great dental erosion. The payment of health, both medicine and dentistry, it is essential for treatment. For instance, when the dentist observes dental erosion in a young patient, may be facing a case of anorexia. He is expected to guide the patient and refer it to a doctor, and that addresses the consequences of this disease in the oral cavity of young. Both adolescent obesity and teenage anorexia - which are opposite extremes - have clear effects in the oral cavity. It is for the dentist to treat oral symptoms and refer the patient to the medical field. We conclude that knowledge of the eating habits of each patient by the dentist aids treatment and oral understanding of the patient. The reflections of this study suggest the need for interdisciplinary actions for achieving results in the prevention and treatment of children's dental diseases.

156 Effect of different toothpaste on eroded enamel and dentin under hyposalivatory conditions: An in situ pilot study

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Aim: To evaluate the efficacy of tin (Sn+2) toothpaste associated to a biopolymer in case of erosion in enamel and dentin in patients with hyposalivation. **Methods:** Eight subjects submitted to head and neck radiotherapy and with hyposalivation were included in a double-blind, cross-over in situ trial with 4 randomly assigned dentifrice treatments: Placebo (0 ppm F); NaF toothpaste (1450 ppm F NaF); SnF2 toothpaste (1100 ppm SnF2 + 350 ppm NaF) and the experimental toothpaste (1450 ppm NaF + 3500 ppm SnCl2 + 0,5% chitosan). The subjects wore palatal appliances holding bovine enamel and dentin specimens (4x4x3mm) previously eroded in vitro (1% citric acid, pH 3.5, 20 minutes). Salivary flow, pH and buffer capacity of patient`s saliva was measured in each experimental phase. Surface microhardness was determined before and after the erosive challenge and after the in situ remineralization to assess surface microhardness loss (%SMH) and recovery (%SMR). ANOVA and pairwise comparisons by Tukey test were performed ($p<0.05$). **Results:** The formulations containing Sn+2 showed the lower mean for %SMH and higher mean for %SMR for both enamel and dentin, with statistical differences in relation to placebo and NaF toothpaste ($p<0.05$). It was not found statistical difference between toothpaste with and without chitosan and between the placebo and NaF toothpaste ($p>0.05$). **Conclusions:** Toothpaste containing Sn+2 showed higher anti-erosive effect than NaF toothpaste, which did not have any protective action in eroded enamel and dentin under hyposalivation. In this condition, chitosan did not enhance the anti-erosive effect of Sn+2 formulations.

157 Fluoride binding to biofilm bacteria via calcium bridging

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Aim: In spite of the recognized anticaries effect of fluoride(F),its retention on the surface of dental biofilm bacterial surface is not known in details. Calcium ions work as bridges to bind F, however the ability of these ions to increase retention of the F in the biofilm is not established. This study was conducted to evaluate the effect of Ca on fluoride binding to the surface of dental biofilm bacteria. **Methods:** Streptococcus mutans IB1600 pellets obtained by centrifugation were treated in vitro with PIPES buffer, pH 7.0, containing Ca and F at different concentrations (G1:0 mMCa + 0,053 mMF; G2: 1 mMCa + 0,053 mMF;G3: 10 mMCa + 0,053 mMF; and G4: 1 mMCa + 0,526 mMF) during 60 min. The amount of Ca and F bound to the bacteria was estimated after extraction of ions with acid, using colorimetric assay and ion-specific electrode, respectively. **Results:** The results of Ca binding were: G1=3.0 ± 0.6; G2=8.5 ± 0.9; G3=21.6 ± 3.3; G4=Ca 7.9 ± 0.4 µmol Ca/g; for fluoride, the binding was G1=0.30 ± 0.08; G2=0.26 ± 0.17; G3=0.23 ± 0.14; G4=0.41 ± 0.05 µmol/g. The results showed that the higher the concentration of Ca or F in the treatment, the higher was the binding of these ions in bacteria. Nevertheless, a higher Ca concentration was not able to increase the F binding. **Conclusions:** The results suggest that, at the concentrations used, the retention of F in the biofilm is not increased by the concentration of Ca bound to bacteria.

158 A pilot study on the dosimetric distribution to the teeth of patients with head and neck cancer

FERNANDES, P.M.*; FARIA, K.M.; SANTOS-SILVA, A.R.; MENEGUSSI, G.; RIBEIRO, A.C.P.; BRANDÃO, T.B.

Aim: Determine mean radiation doses delivered to the incisor, premolars and molars of head and neck cancer (HNC) patients during radiotherapy. **Methods:** A retrospective study based on HNC patients who underwent radiotherapy. A dosimetric analysis was performed by using calculation algorithms on CMS XiO [Elekta CMS Software, St. Louis, Missouri] version 4.60. **Results:** All tumor sites investigated in this study were associated to higher radiation doses to the posterior mandible teeth than maxillary teeth. Oral cavity and oropharynx tumors presented the highest mean doses to the teeth, which were concentrated in molar and premolars of both maxilla and mandible. **Conclusions:** The dosimetric data presented in this study may contribute to the development of a planning protocol to reduce teeth radiation and may also help clinicians to decide whether a tooth may be extracted pre-HNR or post-HNR.

159 Potential antifungal activity of extracts and fractions obtained from Punica granatum L. (pomegranate) against Candida s

ANIBAL, P.C.*; BUSATO, S.N.; FOGLIO, M.A.; HÖFLING, J.F.

Aim: Candida is a common comensal of the human mucous surface and is an opportunistic pathogen, especially detected in hospitalized patients with nosocomial infections caused by the prolonged use of antifungal drugs, resulting in acquisition of resistance to these drugs. Several researches involving medicinal plants have been the aims of many studies, supporting scientific researches to the development of new drugs for pharmaceutical industry, especially to the development of new therapies. Extracts and fractions obtained from Punica granatum L. (pomegranate) have showed several activities, among them anti-inflamatory, anticarcinogenic and antimicrobial effect, with antifungal action against yeasts of Candida genus. The aim of this study was to verify if extracts and fractions obtained from pomegranate show antifungal activity against strains of Candida spp., isolates of nosocomial infections (blood culture) and to biofilm through minimal inhibitory concentration (MIC) test. **Methods:** extracts and fractions were tested by MIC against Candida albicans, C. tropicalis, C. krusei, C. parapsilosis and C. glabrata, 10 isolates of blood culture and at biofilm of C. albicans. Fractions with interesting results were analyzed by HPLC and purified. **Results:** Data obtained in our research showed antimicrobial capacity of extracts and fractions of P. granatum against yeast cells of Candida genus and isolates of blood culture, with a MIC of 125 µg/mL. **Conclusions:** These results represent new perspectives for future research, with a promisor site for the development of new bioactive compounds to the alternative treatment against these organisms.

160 Conservative approach for ameloblastoma of the mandible: long follow up and important tumor regression

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Ameloblastoma is a benign odontogenic neoplasm that may exhibit aggressive biological behavior as evidenced by its rapid growth and significance recurrence rates. This pathology can be classified into 4 groups: unicystic, solid or multicystic, peripheral, and malignant. The lesion occurs most frequently in the mandible, with the molar and ramus region being the most common site. Sometimes, this lesion is associated with expansion of the mandibular cortical bone, causing severe facial disfigurement. Ameloblastoma comprises of 1% of all oral tumors and about 11–18% of odontogenic tumors. Currently, the principal therapy for ameloblastoma is surgical, and adjunctive treatment modalities are needed to mitigate tumor growth and to reduce the need for extensive and disfiguring surgeries. Various treatment techniques for ameloblastomas have been proposed, which include decompression, enucleation/curettage, sclerotizing solution, cryosurgery, marginal resection, and aggressive resection. Literature shows treatment of this lesion continues to be a subject of intense interest and some controversy. Thus, the authors aimed to describe two cases of ameloblastoma treated in a conservative way. One of a 23-year-old subject who was successfully treated using conservative approaches, as decompression. The patient has been followed up for 17 years, and has remained clinically and radiographically disease-free. Currently, started rehabilitation by installing dental implants. The second case is a 17-year-old girl who has been treated for mandibular ameloblastoma for a year and a half presenting with an important tumor regression just using a conservative treatment.

161 Oral health status of the elderly poor community

BRANDÃO, V.O.*; QUELUZ, D.P.

The increasing aging population worldwide, including Brazil, underscores the importance of measures to deal with this situation. The problem that involves oral cancer is the lack of early diagnosis, leading to sequelae or even death. **Aim:** To identify the oral health status of the elderly poor community in Piracicaba. **Methods:** Data collection was via oral clinical examination and a questionnaire / interview in 66 elderly of both sexes; including functional habits, quality of oral hygiene, systemic diseases, early diagnosis of cancer. Data were statistically analyzed using descriptive measures and estimates. **Results:** The results indicated: higher prevalence of female gender (72.72%); married status (39.39%); low education (42.42%); high frequency over 80 years; low frequency with satisfactory oral hygiene; high frequency with prosthesis and some with not good adaptation (18.18%); low frequency with wounds in the oral cavity; the elderly present alterations in the oral cavity as a result of the manifestations of systemic diseases, nutritional deficiencies or side effects by the use of drugs, among other reasons. **Conclusions:** The study pointed to low rates of wounds in the oral cavity; however the bad oral hygiene and systemic diseases are frequent.

162 The role of nicotine, cotinine and caffeine on the bacterial colonization to cp-ti

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Aim: Although smoking promotes deleterious effect to bone healing, there is a lack of study investigating its role on the biofilm growth. We hypothesized that nicotine, cotinine and caffeine would enhance Streptococcus sanguinis biofilm growth on the surface of commercially pure titanium (cp-Ti). **Methods:** Cp-Ti discs were divided into groups as a function of nicotine, cotinine and caffeine concentrations (0-control, 0.3, 3, 30 and 300 µg/mL). Discs were inoculated with S. sanguinis and incubated at 37 oC during 48h in growth medium with nicotine, cotinine and caffeine. The number of colony forming units, biofilm biomass and extracellular matrix composition (carbohydrates and proteins) were determined. All assays were performed independently 3 times in triplicate. SEM was used for biofilm structure characterization. Data were evaluated by ANOVA and Tukey HSD test (α=.05). **Results:** Nicotine at 3 µg/mL, and cotinine at 0.3 and 3 µg/mL increased the number of viable cells (P< .05). Biofilm exposed to nicotine (0.3, 3 and 30 µg/mL) (P= .025, .030, .040, respectively) and cotinine (3 and 30 µg/mL) (P= .027, .049, respectively) enhanced carbohydrates content. Biofilm biomass and protein content were similar among groups (P> .05). **Conclusions:** These findings suggest a greater biofilm accumulation in smokers, a risk factor that may lead to peri-implantitis.

163 Case report of labial frenectomy associated to Moyers analysis: multidisciplinar approach

CAMARGO, A.V.*; ZANIBONI, E.; MATOS, R.; VEDOVELLO, S.; TEDESCO, T.K.; BASSI, J.; REYES, A.; KIMURA, J.S.

Treatment decision-making related to the moment of intervention of labial frenum still has no consensus in literature. Multidisciplinary approach seems to be an alternative to decision-making. The objective of this study is to report an upper labial frenectomy in an 8 years-old girl after multidisciplinary approach in the Integrated Pediatric Dental Clinic of Uniararas. On anamnesis, it was reported chronic tonsillitis and deviated nasal septum. On extra-oral exam, the patient presented lack of labial seal and the child was mouth breather. On intra-oral exam, it was observed upper labial frenum, mixed dentition, increased overjet and absence of space for canines and pre molars eruption. After panoramic radiograph and molding, Moyers analysis was performed to investigate the space probability during mixed dentition. After this, the absence of space for canines and pre molars eruption was confirmed. For labial frenectomy, it was performed topical and infiltrative anesthesia, far of frenum insertion, incision of the frenum and dilatation using a curved scissors, excision of fibrous cord and curettage of fibrous tissue to avoid undesired reinsertion of the frenum, suture and surgical cement. Suture was removed after one week. After this process, the patient was referred to orthodontic treatment and evaluation with a speech therapist and otorhinolaryngologist. The multidisciplinary approach is important to the correct diagnosis and treatment of labial frenum, aiming the well-being of the patient and maintaining the equilibrium of the stomatognathic system.

164 Case report: Conservative rehabilitation with glass fiber post and indirect cermomer onlay

CAMARGO, A.V.*; ZANIBONI, E.; VENANCIO, F.; GRIGOLETTO, M.; BIANCO, V.C.; CUSTODIO, W.; GODOI, A.P.T.

The evolution and development of indirect dental restorative metal-free like materials, i.e. ceromers, has brought new perspectives to the cosmetic dentistry and more conservative treatments. This study aimed to review the literature and presents a clinical case about ceromers and glass fiber post. A male subject, 14 years old, with coronal destruction of mandibular first molar (36) (destroyed faces: mesial-occlusal and buccal). In addition, it could be observed the integrity of the occlusal-distal and lingual faces, and the satisfactory endodontic treatment of it. Due to the presence of large amount of dental substrate it was proposed the rehabilitation with glass fiber post and indirect ceromer onlay. Therefore, after endodontic desobturation and bonding of the glass fiber post with resin cement, the coronal portion was prepared with composite resin following the conventional adhesive technic. After the coronal part preparation, the molding impression technic was carried out with double gingival retraction cords and condensation silicone impression material. Finally, the ceromer onlay was bonded with resin cement. The clinical and radiographic follow-up was strictly persuaded after 24 h, 1 week and 3 months.

165 Oral aesthetic-functional rehabilitation of a preschool child after traumatic dental injury

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Traumatic dental injuries (TDI) are widespread in child population. TDI can have a negative impact on children's quality of life, influencing in both physical and psychological aspects and resulting in stress and anxiety of them and parents. The maxillary central incisors are the most affected teeth, and the intrusive luxation is the most common injury in primary dentition. An anterior tooth affected can cause chewing and speech difficulties. Also, it can cause social and psychological embarrassment. This report aimed to present a case of an oral aesthetic-functional rehabilitation of a preschool child that had suffered a TDI. A 4-year-old boy was referred to the Pediatric Dentistry Division, Piracicaba Dental School, State University of Campinas, three days after he had suffered dental trauma on 51, 61 and 62 teeth. After anamnesis and clinical exam, it was observed intrusive luxation of the maxillary central incisors with giroversion of 51, and avulsion of 62. In radiographic exam, it was observed a fracture involving the alveolar bone. Based on these findings, the appropriate treatment choose was the extraction of the intruded elements. The patient returned 7 days after the procedure reporting no painful symptoms. The healing of the surgical wound occurred it was expected. Then, it was made an aesthetic space maintainer to establish aesthetic and oral function. The patient will be followed up until the anterior permanent teeth eruption. The professional approach for traumatic dental injuries in pediatric dentistry should be conscious and safe including the longitudinal follow up of the patients.

166 Composite direct veneer as an alternative treatment for anterior tooth without vital pulp: a case report.

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The incorporation of high concentration of inorganic fillers in resin composites improved their physical properties and restorations longevity. Furthermore, there are different colors and effects of composites which mimic the natural tooth. Thus, when properly used they could restore the lost tooth structure with great aesthetic satisfaction. A white female patient, 25 years old, sought Restorative Dentistry Clinic of Piracicaba Dental School, complaining of dissatisfaction with the color of the tooth 11. After clinical and radiographic evaluation, it was conclude that the tooth was endodontically treated and presented a direct veneer. The patient was mouth breather and had anterior open bite, which contributed to the incisal anatomy preservation. Therefore, it was decided to conduct three sessions of internal bleaching and replacement of the direct veneer in composite, as it is the more conservative approach when compared to porcelain veneer. After completion of treatment, the patient was very satisfied with the result, confirming that the composites can be used as an alternative to indirect ceramic restorations. Thus, the sum of correct indication and application of commercially available composites and technical skill can achieve good aesthetic and functional outcome, equaling or surpassing the dental ceramics.

167 Evaluation of height and volume of the coronoid process through Cone Beam Computed Tomography exams

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Aim: To measure height and volume of the mandibular coronoid process, using Cone-Beam Computed Tomography exams in order to correlate them with age, gender, skeletal class and facial type of different patients. **Methods:** 132 patients were selected for obtaining the samples. It was applied the software OnDemand 3D (Cybermed, Seoul, Replubic of Korea) to measure the height of the coronoid process, while the volume of it was obtained by means of software ITK-SNAP 3.0 (Cognitica, Philadelphia, PA). The measures were submitted to analysis of covariance (ANCOVA) between facial types, skeletal classes, gender and age, with a significance level of 5%. **Results:** There were no statistically significant differences in age, facial type and skeletal class in any of the variables studied, but the measures of height and volume of the coronoid process of males were higher than those in females. **Conclusions:** Gender is the only factor that influences height and volume of the coronoid process.

168 Facial rehabilitation with use of nasal prosthesis in oncological patient

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An elderly White patient (89 years old), alcoholic was diagnosed with melanoma in 2013. He underwent radiotherapy and no effective results were observed. The recurrence of the oncological injury in 2014 culminated in a nose loss. He was admitted at Piracicaba Dental School seeking for facial rehabilitation. The patient had your hair skin protect with petroleum jelly, and the facial defect. filled with gauze for facial impression using irreversible hydrocolloid. The impression was limitaded to the nasal sulcus and superior lip. The impression material was covered with gauze to support the mold which received a type II plaster. The cast was obtained with type III plaster on wich the nasal prosthesis was sculpted with red wax. A try-in of the sculpted nose was performed to provide aesthetic evaluation. The nose was invested in type III plaster and the prosthesis was fabricated in silicone. The silicone pigmentation mimicked the patient's skin and was performed under photograph analysis ans in situ settings. Patient reported satisfaction and improved quality of life was noted. He is still under monitoring.

169 Evaluation of the profile of patients who have suffered dental injuries

COSTA, D.R.*; NUNES, M.C.P.; QUEIROZ, A.F.; CONTI, L.C.; ISHIDA, A.L.

Aim: One of the major public health problems among children and adolescents considered by the ministry of health is dental trauma. This is due to its high prevalence, its high psychosocial impact, and the high cost of treatment of traumatic dental injuries. The dental trauma becomes frequent according to the increasing rate from falls, traffic accidents and increase in sports activities where the use of protective equipment is neglected. Another factor occurs in games held in unsafe environments. Dental traumas are one of the most common reasons for seeking to emergency care services. The aim of this epidemiological study was to evaluate the profile of patients attending the extension project of dental trauma dental - CEMTrau, within ten years. **Methods:** As a methods, through epidemiological surveys of 741 patient records, the information obtained are related in most affected gender; presence of previous trauma; age; causes; dental injury and more prevalent periodontal injury. **Results:** As a result, the male gender was most affected, age 6-10 years, through the fall. Showed no previous trauma. The most affected teeth were the central incisors and the most dominant dental and periodontal injuries were, respectively, the fracture of enamel and dentin without pulp exposure and avulsion. **Conclusions:** Therefore, it is concluded that, children 6-10 years are more exposed to dental trauma, as well as the most prevalent dental injury in this case is the fracture of enamel and dentin without pulp exposure.

170 Epidemiological profile of dental trauma in the Faculty of Dentistry of Piracicaba, UNICAMP: Retrospective study of 10 y

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Evaluation of the characteristics of dental trauma in each geographical area is important for prevention, treatment and prognosis. **Aim:** The aim of this study was to analyze the profile of traumatic dental injuries in permanent teeth treated over the last 10 years at the Trauma Attendance Center, Piracicaba Dental School, in Brazil. **Methods:** Data were obtained from the medical records of 537 patients who attended the Center between 2002 and 2012 (179 women and 358 men) totalizing 1500 injured teeth. **Results:** The most prevalent age group was children under 14 years (264 patients/49.16%). Gender exerted influence regarding the etiology of trauma ($p< 0.05$/Chi-square test) in the proportion male:female ratio of 2:1. Falls (29.73%) and bicycle accidents (28.66 %) were the most common etiologies. Work accidents (90%) and physical aggressions (84%), were more prevalent in men, while falls (47%) were in women ($p<0.05$). The maxillary central incisors were the most affected teeth (801/53.4%). The most prevalent injury was fracture of enamel and dentin in hard tissues (334/22.27%) and subluxation in supporting tissues (890/59.33%). The majority of patients were attended to within 30 days after trauma occurrence (192 patients/35.75%). **Conclusions:** Knowledge of the epidemiological profile by geographical area is important for the development of preventive measures, laws and public health policies that reduce the prevalence and improve the prognosis of traumatic dental injuries.

171 Use of sodium thiosulfate to neutralize residual hydrogen peroxide after internal bleaching: in vitro study

CORRÊA, A.C.P.*; LACERDA, A.C.; ALMEIDA J.F.A.; ZAIA A.A.; GOMES B.P.F.A.; FERRAZ C.C.R.

Aim: This study evaluated the effectiveness of sodium thiosulfate (na2s2o3) in restoring the bond strength to intracoronary dentin treated with 35% hydrogen peroxide (h2o2). **Methods:** The samples were divided into 10 groups: g1- without bleaching; g2- bleaching (35% h2o2 for 40 min) + washing with 0.9% nacl; g3 and g4- bleaching + washing with 0.9% nacl + restoration after 1 week and 2 weeks, respectively; g5 and g6- whitening + 10% na2s2o3 for 5 and 10 min, respectively; g7 and g8- whitening + 20%na2s2o3 for 5 and 10 min, respectively; g9 and g10- whitening + 35% na2s2o3 for 5 and 10 min, respectively. On the treated dentin, the adhesive protocol was performed using the scotchbond multipurpose system, followed by the confection of composite resin blocks. After 24 hours, the samples were sliced to obtain 48 sticks for each group. **Results:** the microtensile test was performed in the universal testing machine emic and converted into mpa data were analyzed by anova / tukey-kramer test ($p <0.05$). Group 2 (positive control) showed significantly lower values than groups 1 (negative control), 4, 6, 7 and 8. However, the negative control showed a value of bonding strength statistically similar to all groups where protocols were performed with the antioxidant. **Conclusions:** It is suggested that washing with 20% sodium thiosulfate for 5 min has proved so effective in restoring the bond strength, than to wait 2 weeks for realize the adhesive restoration after internal bleaching.

172 Biomechanical analysis of osseointegration in osteoporotic rats treated with raloxifene

SILVA, A.C.E*; YOGUI, F.C.; RAMALHO-FERREIRA, G.; FAVERANI, L.P.; OLIVEIRA, J.A.; BOTACIN, P.R; OKAMOTO, T.; OKAMOTO, R.

Aim: The aim of this study was to evaluate the effect of this drug on the process of bone repair in bone / implant interface in osteoporotic rats. **Methods:** We used three experimental groups: SHAM, rats subjected to sham surgery and fed a balanced diet; ST-OVX, rats underwent bilateral ovariectomy, fed with low calcium diet (osteoporotic) and without drug treatment; RAL-OVX, rats underwent bilateral ovariectomy, fed with low calcium diet (osteoporotic) and raloxifeno. Each animal received an implant in each tibial metaphysis. On the right tibia was installed an implant with machined surface and on the left with an implant modified by acid attack surface was installed. Euthanasia of animals was performed 42 days postoperatively and was held biomechanical analysis (reverse torque). **Results:** Data were submitted to ANOVA test where the variables drug treatment and implant surface were evaluated. Surface treatment, the post-test Tukey identified greater torque for implants with treated surface compared to the machined surface ($p = 0.020$). As drug therapy, increased torque with no differences between groups vs. Sham was observed ST-OVX ($p <0.001$), with greater torque to Sham; Vs. OVX-RAL ST-OVX ($p <0.001$), with greater torque for OVX-RAL; Sham vs. OVX-RAL no statistically significant difference ($p = 0.861$). **Conclusions:** It is concluded that the surface treatment leads to an improvement in the osseointegration process. The raloxifene therapy can improve osseointegration, with results similar to the Sham group.

173 Relationship between mandibular canal and the facial type in panoramic radiographs

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Aim: This study assessed on panoramic radiographs the location of the mandibular canal and correlated with the facial type and sex of individuals. **Methods:** 180 panoramic radiographs were evaluated and distributed according to sex and facial biotype, totally dentate and aged ranging 18-51 years. The determination of facial biotype was performed on panoramic radiographs by Tatis analysis, evaluating the square of the mandibular fossa, the maxillary-mandibular angle and mandibular angle deflection on ImageLab2000® software. These individuals present their mandibular canal bilaterally measured and classified according to their location relative to the root apex of the mandibular molars and the mandibular base on panoramic radiographs. To implement this classification, measurements of the distance from the mandibular canal to the apices of the teeth and mandible on the Software ImageLab 2000® were performed. The intra-observer reproducibility of measurements on radiographs was evaluated using the coefficient of variation. The data were submitted to the Kruskal-Wallis test, in GraphPad Prism 6, Inc. software. **Results:** No statistically significant differences (Kruskal-Wallis, $p = 0.106$) were obtained of the type of mandibular canal between facial types, regardless of sex and side. **Conclusions:** Mandibular canal presents morphological changes in relation to the apices of the permanent molars, and the mandibular base, but not vary according facial type.

174 Immediate implant-supported fixed provisional mandibular prosthesis - case report

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In this clinical case were reported pre, trans and post-surgical procedures related to the manufacture and installation of implant-supported fixed provisional prosthesis with immediate loading, on a Kennedy Class II, modification 1. The male patient, age 62, attended the clinic with the main complaint "upper and lower dentures maladapted" and without satisfactory aesthetic, sensitivity in the remaining teeth and also unsatisfactory chewing and speech. It was noted on clinical examination partial edentulism in both dental arches with the presence only of the elements 43, 46, 13 and 24-28, and the patient had a Removable Partial Denture (RPD) with maladjusted retainers and biofilm accumulation in several areas of the prostheses. As the first phase of treatment was chosen for the lower rehabilitation an implant-supported fixed prosthesis and subsequently the production of an upper PPR. After extraction of remaining teeth, were inserted 5 implants in the jaw, which were immediately loaded with a provisional prosthesis made of acrylic resin. The indicated therapy has proved to be a viable option, restoring satisfactory aesthetics and function, besides comfort, fewer clinical sessions, lower cost and does not require the use of removable temporary prosthesis and subsequent prostheses reliner.

175 Treatment of anterior open bite with the use of directional forces – case report

CARDOSO, A.A.*; MAGNANI, M.B.B.A.; SIQUEIRA, V.C.V.; PEREIRA NETO, J.S.

Malocclusion is a significant clinical variation of normal growth resulting from the interaction of many factors during development. The dental balance and harmony are maintained by internal of the tongue and external forces of the lips and cheeks. The imbalance of these forces leads to dentofacial disharmony. The verticals malocclusions develop as a results of several interation, etiologic factors related to the presence of deleterious oral habits, especially the finger sucking, mouth breathing and tongue and lip interposition. The anterior open bite (AOB), defined as the negative overbite between the incisal edges of anterossuperiores and lower teeth, is considered one of the malocclusions more aesthetic and functional impairment, moreover produce significant dental and skeletal changes. The diagnosis of AOB involves differing two groups: skeletal and dentoalveolar. The aim of this study was to describe a clinical case of a 18-year-old woman who had AOB dentoalveolar associated with digital sucking, addition of posterior cross bite and canine relationship of Class III. Orthodontic therapy was proposed with appliances fixed and vertical control with the use of headgear parietal traction. The treatment was completed successfully and the end of 36 months there was a correction of AOB with improvement of relations between the vertical and sagittal jaw and jaws, facial esthetics and occlusal and functional characteristics.

176 An unusual surgical management of complex odontoma involving the mandibular angle: Case report and literature review

CÁCERES, A*; CARDOSO, P.M; SOUZA, G.A.; ELLEY, S; ASPRINO, L.

Odontomas (OD) are the most common benign odontogenic maxillary tumors, and are reported to account for 22–67% of all odontogenic maxillary lesions. These tumors are more prevalent in children and adolescents, with few differences in relation to patient sex. OD are classified into compound and complex types. The compound is composed of multiple small toothlike structures, whereas the complex consists of a conglomerate unshaped calcified tissue. According to Pindborg. et al. the term OD was reserved for odontogenic malformation containing epithelial and mesenchymal with complete differentiation. OD may lead to interfere with the eruption of permanent, and rarely with deciduous teeth or they can be associated with others pathologies. Commonly, compounds odontomas are located in the anterior region of the maxilla, whereas complex odontoma are usually located in the molar region of the mandible. Ocassionally they may appear in a unexpected locations, such as maxillary sinus, middle ear, ramus or angle of the mandible, therefore other considerations should be taken into account. Although the treatment of choice is the enucleation, this kind of treatment can be modified, especially if it appears in an unusual location. We present a case report of a large complex odontoma erupted in the oral cavity in that treatment choice was removal of tumor with reconstruction by 2,4mm locking plate prebend with auxiliary stereolitographic model by intraoral approach.

177 Effects of sodium thiosulfate on the bond strength of self-adhesive resin cement to root dentin

LACERDA, A.C.*; CORRÊA, A.C.P.; MIYAGAKI, D.C.; ALMEIDA, J.F.A.; GOMES, B.P.F.A.; FERRAZ, C.C.R.

The choice of irrigation protocol is an important step in the endodontic treatment as well as the subsequent tooth restoration with fiberglass posts. **Aim:** To evaluate the effects of endodontic irrigants and an antioxidant agent on the bond strength of relined fiberglass posts cemented with self-adhesive resin cement. **Methods:** Bovine roots were prepared and randomly divided into 9 groups (n = 5) according to the pre-treatment in radicular dentin: G1(control), 0.9% Sodium Chloride; G2, 5.25% Sodium Hypochlorite (NaOCl) + 17% EDTA + NaOCl; G3, G2 + 5% Sodium Thiosulfate (ST) for 1min; G4, G2 + 5% ST for 10min; G5, 2% Chlorhexidine gel (CHX) + 17% EDTA; G6, NaOCl; G7, 17% EDTA; G8, 5% ST for 10 min and G9, CHX. The fiberglass posts were modeled and cemented with RelyX U200. After 24 hours of water storage, disks of 2mm thick were prepared and subjected to the push out test. Data were analyzed statistically by Anova and Tukey's test (α=0.05) and the failure mode classified under Scanning Electron Microscopy. **Results:** There was no statistical difference in the G1 compared to other groups. G2 and G3 showed significant differences compared to G9. The bond strength values G8 and G9 were statistically higher than G5 and G6. **Conclusions:** It was concluded that NaOCl and CHX, used alone or associated with EDTA, did not affect the bond strength of RelyX U200 cement to root dentin. However, the isolated use of CHX showed higher bond strength to NaOCl, associated or not with EDTA.

178 Prototyping: supporting method for sculpture in Maxillofacial Prosthesis

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The aim of this study is to present the use of prototyping for manufacturing an orbital prosthesis. Recently, prototyping has emerged as an option for conventional Maxillofacial Prosthesis molding procedures, saving clinical time. This procedure allows obtaining mirror models from unaffected portion of the patient's face, helping the sculpture of the future prosthesis and providing the production of very realistic work. The prototype of the face was obtained from computed tomography (Centro de Tecnologia da Informação Renato Archer). From the duplication of the prototype, it was possible to get a piece of wax which internal region did not required rebasing or adjustments. The external region has been adjusted according to the soft tissue of the patient. The final result obtained in the sculpture shows that the use of prototyping helps to obtain a sculpture with proper seating in the tissue, without the need for internal adjustments. In the external region, the procedure helps, but does not replace the professional manual sculpture.

179 Bad oral health habits

CORREA, A.A.K.*; QUELUZ, D.P.

Habits are practices that are acquired by frequent repetition of an act that is conscious at the beginning and then becomes unconscious. The aim of this study is to discuss the bad oral health habits. Through literature review focus: thumb sucking, pacifier sucking, suction bottle, mouth breathing, bruxism. Bad habits are a risk factor for various dent-maxillary anomalies and the degree of commitment depends on the frequency, intensity and time are extended so it is important to know to identify and address because while previously intercepting be easier of control and restrict its consequences. If this habit continues after prune produces an imbalance in the muscles of the face, tongue pinch occupies an altered position. We conclude that it is important to know and identify the bad habits to prevent, avoid disastrous consequences children and adults, and that there are measures to be taken to prevent them and allow the correct development of health and adequate anatomic structures of the maxillofacial bone.

180 Epidemiologic evaluation of the facial trauma in elderly patiens treated in the Maxillo-facial surgery Area FOP-UNICAMP

LANATA-FLORES, A.*; SIGUA-RODRIGUEZ, E.A.; CARDOSO, P.M.; BARBOSA, J.R.

Recent studies demonstrated an increase in the elderly population. **Aim:** This study examined the epidemiological characteristics of elderly victims of facial trauma attended by Area Surgery Maxillo-Facial, in Piracicaba city and region, from April 1999 to December 2012. **Methods:** The analysis was directed at population data for variables such as age, gender, race, trauma etiology, injury to the face or not, including facial fractures or not and associated fractures, treatment given, time elapsed between injury and treatment, beyond the period of follow up and complications. We analyzed data of patients by completing a form specifically designed for clinical annotation data for the study of facial trauma. Were excluded from the study patients with incomplete filling of the information. **Results:** A total of 237 elderly patients were evaluated, 127 (53.6%) patients were male and 110 (46.4%) females, the fall was the most frequent cause in 146 cases (61.6%) of total with the highest incidence in the middle third of the face with 114 fractures (48.1%), sit the bones of the nose 47 cases (19.8%) and zygoma 42 cases (17.7%), and the total patients evaluated with respect to treatment of 237 patients evaluated, 101 cases (42.6%) were treated conservatively, 28 cases (11.8%) underwent surgery and 18 cases (7.6%) underwent treatment. **Conclusions:** This study showed that the fall was the most predominant cause, resulting in fractures of the middle third and decrease less surgical indications for this group, except in cases where the function is compromised, and sings in the physiological, psychological resulting from aging.

181 Effect of misfit in the marginal peri-implant bone level

STEFANO, A.F.*; MATARAZZO, F.; ARAÚJO, M.G.; DE SOUZA, A.B.

Marginal bone loss around the implant may represent a threat to implant longevity. However, the reasons for long-term that lead to marginal bone loss are not well defined. **Aim:** The purpose of the study was to investigate whether the prosthesis misfit generates bone loss around implants. **Methods:** The analysis was based on periapical radiographs, in which the presence of a misfit, the marginal bone level and the distance between the misfit and bone level were analyzed. **Results:** A total of 169 subjects and 546 implants were included in this study. The misfit was detected in 42 implants (7.7%). The mean of the marginal bone loss was 2.6±0.9 mm in implants with misfit and 2.3±1.0 mm in implants without misfit ($p < 0.05$). Considering only implants with mucositis, this distance was 2.5±0.9 mm and 2.1±0.9 mm in the presence or absence of a misfit, respectively ($p < 0.05$). In implants with peri-implantitis, no significant difference was found. The distance was 3.2±1.3 mm and 2.9±0.7 mm in the presence or absence of a misfit, respectively. **Conclusions:** Based on these results, it is suggested that the presence of a misfit increases the average marginal bone loss in implants in general and with mucositis, however, it does not occur in implants with peri-implantitis.

182 Evaluation of the effects of periodontal treatment on levels of ascorbic acid in smokers

STEFANO, A.F.*; SILVA, C.O.; SAPATA, V.M; ZANONI, J.N.

Smokers consistently have lower levels of vitamin C, which is important for optimal healing, especially following invasive procedures. Some studies demonstrated that patients undergoing surgery experience significant reductions in systemic vitamin C levels, presumably due to higher metabolic utilization of existing vitamin pools. However, there appear to be no studies evaluating the effect of non-surgical periodontal therapy on plasma levels of vitamin C. **Aim:** The aim of this study was to evaluate if the non-surgical periodontal therapy is able to reduce the plasmatic level of ascorbic acid (AA) in smokers. **Methods:** Twenty-six systemically healthy adults (>40 years) smokers (10 cigarettes/day for>5 years) who needed scaling and root planning (SRP) for chronic periodontitis were recruited. The sessions of SRP (per quadrant) were scheduled with 7 days apart from each other. Blood was collected by venipuncture before the first session of SRP and at the end of the periodontal treatment. The ascorbate concentrations in plasma were assessed according to the published protocol. A paired-t test ($P<0.05$) evaluated the statistical significance of differences between the mean values obtained for pre- and post-treatment. **Results:** In general, there was no significant change in levels of AA, however, in 38% of patients increased levels of AA in plasma was observed after SRP, in 15% no change was noted and 47% of patients showed a significant reduction in levels of AA after SRP. **Conclusions:** It can be concluded that although SRP did not significantly change the levels of AA in smokers, almost half of individuals present reduced levels of ascorbic acid.

183 Influence of Chlorhexidine-added on the Icon® wettability.

MIGUEL, B.S.*; DAINEZI, V.B.; INAGAKI, L.T.; PUPPIN-RONTANI, R.M.

Aim: The objective of this study was evaluated the effect the chlorhexidine diacetate (CHX) added to the commercial resin infiltrant on contact angle. **Methods:** CHX was added to Icon® material (resin infiltrant commercial) in two concentration (0.1% and 0.2%). Then, it was accomplished 6 groups according to material conditions and glass slide surface (n=10): Icon+ smooth surface (IS); Icon/0.1%CHX+smooth surface (IS1); Icon/0.2%CHX+smooth surface (IS2); Icon+ rough surface (IR); Icon/0.1%CHX+rough surface (IR1); Icon/0.2%CHX+rough surface (IR2). The wettability was assessed by measuring the contact angles between material and the glass slide using a goniometer Digidrop (Labometric Lda, Leiria, Portugal), measuring for sessile drop. Each material was released from a needle (XX uL) onto a glass slide surface following the groups and high-speed digital camera was used to take shots (xxx shots/sec). The contact angle was defined as the angle between the liquid interface and the glass surface at two points on each sample, and the arithmetic mean was reported as the contact angle of each sample and was using software GBX Digidrop (GBX Company, Bourg de Péage, França) to measure contact angle. Data were submitted to two-way ANOVA test ($p<0.05$). **Results:** The results showed that no significantly statistical difference was found for smooth surface (14.78 ± 1.49a, 16.49 ± 2.90a, 15.36 ± 2.30a), for rough surface (15.30 ± 4.19a, 17.47 ± 4.18a, 18.88 ± 5.18a), respectively to Icon, Icon+0.1%CHX, Icon+0.2%CHX groups. **Conclusions:** The CHX addition does not interfere on contact angles of resin infiltrant commercial.

184 Use of composite pizoelétrica surgery CVDentus for access to the floor of the maxillary sinus

ESPÓSITO, B.F.S.*; LUCATELLI, R.L.; ROSSI, H.F.; MARIANO, R.C.; FERNANDES, L.A.

One of the most common challenges in dental implant surgery, relates to the rehabilitation of atrophic jaws. The objective of this review was to present clinical cases illustrating both the use of piezoelectric device, CVDentus® diamond tips in ultrasonic devices, and the conventional surgical technique, with rotational instruments during the procedures of window opening in the side wall of the sinus cavity for lifting, through bone grafting, the floor of the maxillary sinus. Piezo ultrasonic devices are a safe and effective innovation in surgical techniques of osteotomies and osteoplasty, as compared to traditional techniques for soft and hard tissue with rotary instruments. The use of spherical CVDentus ® tips is feasible in the vestibular wall osteotomy of maxillary sinus with conventional ultrasound devices, presenting itself as a safe technique, are you injured soft tissues, like the Schneider membrane during osteotomy and facilitates, through the phenomenon of cavitation the detachment of the same during the procedure for grafting.

185 Non-surgical management of recurrent tmj dislocation

NOGUEIRA-SILVA, B.*; PINTO, C. M. S. A.; SIGUA-RODRIGUEZ, E. A.; SVERZUT, A. T.; MORAES, M.

The recurrent dislocation of temporomandibular joint (TMJ) is a chronic disease in which the condyles move forward beyond the articular eminence resulting in pain and inability to close the mouth. There are conservative and surgical treatment options. The purpose of this article is to report a clinical case of dislocation of TMJ treated with arthrocentesis associated with injection of autologous blood. A female patient, 42 years old, with a history of TMJ dislocation, for the past two years, complained that the symptoms worsened in last three months, with 3-4 episodes of TMJ dislocation per week. The patient presented preserved mandibular movements on physical examination, and pain on palpation of the muscles of mastication. The maximum mouth opening was 34 mm. Radiographs were taken and no anatomical abnormalities were observed. The treatment planning includes arthrocentesis and injection of autologous blood, 4 ml of blood was injected in the upper joint space and 1 ml in the peri-articular region bilaterally, under local anesthesia and sedation. The patient had an uneventful recovery without new episodes of TMJ dislocation after one year of follow up. This treatment allowed recovery of physiological functions of mouth; Furthermore, it was performed in an outpatient setting, under local anesthesia which reduces the costs; therefore it could be an alternative treatment for this disease.

186 Impact of rheumatoid arthritis and DTM in quality of life and patient satisfaction with their prostheses

Alfenas BFM*, Andrade KM, Rodrigues Garcia RCM

Aim: Chronic diseases such as rheumatoid arthritis (RA) affect the eldery quality of life due to functional limitations of the joints and may be exacerbated by temporomandibular disorders (TMD). **Methods:** This study evaluated the impact of RA on the quality of life oral health related (QVRSB) and satisfaction of the elderly regarding their dentures. Eldery people with complete and/or partial dentures (mean age 64.4 ± 4.6 years), with presence of AR confirmed by a rheumatologist and diagnosed with TMD through the Research Diagnostic Criteria (RDC / TMD) were selected. The patients were divided into two groups: (1) with AR and TMD (n = 12 - experimental) and (2) without AR and without TMD (n = 12 - control). The QVRSB was assessed using the simplified version of the Oral Health Impact Profile (OHIP-14), while the patients satisfaction in relation to their prosthesis was recorded with the aid of Visual Analogue Scale (VAS). The data were subjected to the Mann-Whitney test (alfa = 5%). **Results:** The results of the overall sum of OHIP-14 showed significant difference between groups revealing the negative impact of RA and DTM in QVRSB ($p = 0.0027$). There was no significant difference in patient satisfaction to their prosthesis ($p = 0.3123$). **Conclusions:** It can be concluded that the AR with temporomandibular joint disorder impacts negatively the QVRSB of the elderly, but this condition does not affect the satisfaction of ourselves in relation to their prostheses.

187 Photoelastic analysis of stress around external hexagon and morse taper implants in different immediate loading systems

XIMENES, B.G.*; NÓBILO, M.A.; MESQUITA, M.F

Aim: The objective of this study was to evaluate the stresses generated around morse taper and external hexagon osseointegrated implants after distal loading in different immediate loading techniques: distal bar, casting and laser welding. **Methods:** Three similar infrastructures (one for each technique) were fabricated on a metal matrix simulating an edentulous mandible arch. Five implants were arranged to simulate the clinical distribution of conventional lower protocol. Analogs of the implants were fixed in a metal matrix and a transfer procedure was made. After obtaining a special plaster model, the prosthetic infrastructures were fabricated. These were used on a new transfer procedure and subsequently installed in a photoelastic model made with flexible epoxy resin (GIV Polipox Industry and Commerce Ltd - São Paulo - SP - Brazil). A load application of 4.9N was performed at the region of lower right first molar and subsequently lower left first molar. Five predetermined points along the implant were evaluated and the images were analyzed in Fringes ® program in qualitative and quantitative way by checking the orders of the fringes around the dental implants. The mean values were statistically analyzed using a 2-Way analysis of variance and Tukey test. **Results:** The results showed no significant difference between the infrastructure obtaining techniques, but significant difference was seen between the type of connection. **Conclusions:** From the results obtained it is concluded that the Morse taper implant showed better results in terms of stress distribution.

188 The importance of dental care during the prenatal

LUCAS, B.B*; PEREIRA, B.S.; MATHIEL, D.Q.; MESACASA, D.; HIGASI, M.S.; KASAI, O.M.

Aim: The Rede Mãe Paranaense aims to provide high-quality assistance and prenatal care for high-risk pregnancies to expectant mothers from Parana State. The Projeto PET-Saúde, Universidade Estadual de Londrina (UEL) objective is to integrate teaching, community service and the development of actions to consolidate this network. For dentistry it includes the prevention and treatment of oral infections throughout gestation. Unfortunately, few pregnant women seek dental treatment even when it's offered in the UBS units (UBS) where the prenatal check-ups are made. To increase to 80% the rate of treated expectant mothers in the dental care sector UBS, creating specific appointment books and improvement in active pursuit of patients missing appointments. **Methods:** data collection in the Book of Mom, schedule appointments and diary entry, interviews with dental staff and nurses involved in the care of pregnant women. To prevent possible shortcomings in the treatment directing of pregnant women was drawn flowchart of care, implementing a reservation system schedules intended only for women who have come to be scheduled by the head nurse on the first prenatal consultation. **Results:** at the beginning of the project, 57.89% of pregnant women registered in UBS were in dental care, currently, 60% are satisfied and 36.66% have appointments. **Conclusions:** This study provided greater integration between dental staff and the nurses responsible for prenatal care. Thus, prenatal care is more comprehensive, and there is an improvement in adherence to dental treatment, contributing positively to the health of mother and fetus.

189 Continuing education program in oral health in 12 year-old students

LUCAS, B.B*; STIHAIENCO, L.A.C.; SILVA, L.A.M.P.; ROSA, R.M.D.D.; URSI, W.J.S.; HIGASI, M.S.

The Continued Education Program in Oral Health in 12 year-old students is a project of the undergraduate Dentistry Course, Universidade Estadual de Londrina in partnership with the municipal health department of Londrina and supported by The Brazilian public health system (Sistema Único de Saúde). This project involves the participation of a team of dental hygienist technicians, students and teachers and has been developing its activities since the year 1992. The program seeks to improve the oral health and provide knowledge about general health of the population. The project works with educational activities emphasizing preventive actions in a playful way, establishes dialogue with schools, reports on oral diseases, guides on techniques of oral hygiene and dietary habits. In lectures in schools it is used as teaching material Styrofoam kits, posters, educational brochures, plays and roulette questions. Toothbrushes, toothpaste and fuchsin were also used to raise awareness of students and teachers. In the program approximately 11,175 schoolchildren were accompanied in early childhood education centers, charities, public schools. Most children satisfactorily improved teeth brushing techniques acquiring knowledge about the importance of healthy habits, resulting in improved oral health and better disease control. Positive results were obtained in the quality of life of beneficiaries, as well as knowledge about the realities, needs and level of instruction related to oral hygiene schools in Londrina.

190 Shear bond strength of the Y-TZP/veneer interface after surface treatment

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Aim: Evaluate the effect of surface treatment on pre-sintered yttrium-stabilized tetragonal zirconia (Y-TZP) on shear bond strength with ceramic veneer. **Methods:** The surface treatment was carried out with 50μm aluminum oxide abrasive on Y-TZP surface. The three groups (n=10) were: C-ST (Control – without treatment), C-PRE (surface treated pre-sintering) and C-POS (surface treated pos-sintering). For the shear test Y-TZP specimens were cut into disc and received ceramic veneer with a specific device (5mm ø X 5mm) by the protocol of surface treatment for each group. The specimens were subjected to shear bond test at crosshead speed of 0.5mm/min. The fractured areas were analyzed with optical stereomicroscopy and classified as adhesive, cohesive, or an adhesive-cohesive failure. The shear strength data were submitted to 1-way analysis of variance (ANOVA) and Tukey´s test for comparison between groups. **Results:** Significant differences in shear bond strength were observed between the control group (5.54 ± 2.14 MPa) with the surface treatment, but no significant differences between C-PRE (7.94 ± 2.52 MPa) and C-POS (9.73 ± 5.36 MPa). Adhesive failures were the most prevalent types of failure (57%). **Conclusions:** The pre- sintered treatment did not influence the results of the Y-TZP/Veneer bond strength but the presence of treatment surface increased the bond strength.

191 Effect of misfit and prosthetic abutments on strain induced in overdenture – retaining system casted in Ti cp and in loosening torque of prosthetic screw

ZEN, B.M.*; BHERING, C.L.B.; NUNEZ-PANTOJA, J.M.C.; RIBEIRO, R.F.; BARÃO, V.A.; CONSANI, R.L.; MESQUITA, M.F.

Aim: This study was to analyze the mean of vertical misfit of overdentures bars casted in Ti cp; measure the strain and loosening torque of prosthetic screws, in passive and nonpassive frameworks. **Methods:** Twenty bars were casted with Ti cp, using two types of abutments. The misfit was evaluated using an optical microscope. The misfit quantification followed the protocol of single-screw test. Twenty index were manufactured. The misfit was standardized by interposing a metal ring of 200 μm between pilar A. In the index was also evaluated the misfit level, loosening torque and strain. The measurements of strain were made by strain gauges. The loosening torque of prosthetic screws was evaluated using a digital torque meter. **Results:** Statistical difference (alfa = 0.05) was found between passive and non-passive groups: for vertical misfit ($p < 0,0001$ for both abutments); percentage loosening torque (UCLA, $p = 0.0087$; MA, $p < 0.0001$); mean strain (MA, $p = 0.0192$) independently of passivity and between the non-passive bars ($p = 0.0001$), regardless the abutment used. Pearson's correlation indicated a positive correlation between misfit x loosening torque (UCLA, $r = 0.6503$; MA, $r = 0.7338$); loosening torque x strain for UCLA ($r = 0.5373$) and misfit x strain ($r = 0.5678$). **Conclusion:** the prosthetic screws have a higher tendency for loosening in non-passive prostheses; non-passive frameworks induce higher levels of strain and vertical misfit compared with passive frameworks; UCLA abutments showed the better results in non-passive prostheses; strain, vertical misfit and loosening torque were correlated factors.

192 Quality evaluation of panoramic radiographs taken at the Clinic of Radiology, FOP/UNICAMP

MARTINS, C.P.*; ARGENTO, R.; FREITAS, D.Q.

Aim: The aim of this study was to evaluate the quality of conventional and digital panoramic radiographs performed at clinic of dental radiology of FOP/UNICAMP and compare these two modalities as repetition necessity. **Methods:** The data related about the amount of taken and repeated radiographs were collected for a period of five months. In total 1584 patients had been obtained, they were assisted by students of specialization, master's and doctorate course in dental radiology. The images were categorized according to type (digital or conventional), and student course, only then they were analyzed for positioning errors. **Results:** From 1151 digital radiographs taken, 11,82% contained positioning errors; from 433 conventional radiographs, 22,17% had errors. The students of specialization have committed errors in 17,11% of the images; master's and doctorate students committed errors in 13,98% of the radiographs taken. The most common error was the bad positioning of the tongue and rotated patient on the device. **Conclusions:** It was concluded that the use of digital radiography provided lowest error rates.

193 Perceived oral health in patients with Alzheimer's: self-perception versus caregivers' perception

CAMPOS, C.H.*; RIBEIRO, G.R; RODRIGUES GARCIA, R.C.M.

Aim: Alzheimer's disease (AD) affects cognitive function, and therefore the reported perception on health can be questioned, especially as there is no validated methodology for measuring subjective aspects in the elderly with dementia. Considering that give voice to the patient is important to maintain their autonomy, the aim of this study was to compare the results of self-perceived oral health in patients with AD with the results of the perception of their caregivers, using the Geriatric Oral Health Assessment Index (GOHAI). **Methods:** The questionnaire was administered in the form of interview in 13 patients (6 males and 7 females, mean age = 76.7 ± 6.3 years) in the mild stage of AD and their caregivers (12 females and 1 male, mean age = 51.7 ± 11.1 years). The data were submited to the Mann-Whitney test at a significance level of 5%. **Results:** As a result, we found that the median value (95% confidence interval) obtained from AD patients was 36 (32.75 - 36) points, and the median of the responses of caregivers was 34 (32- 34.5), both being classified as high GOHAI index. There was no statistical difference (P = 0.262) between the values obtained from AD patients and caregivers, demonstrating a positive self-perception of oral health care for both. **Conclusions:** It can be concluded that there was agreement in responses between patients and caregivers, signaling that the elderly in the mild stage of AD were able to perceive the conditions of your oral health as well as their caregiver.

194 Dental treatment under general anesthesia of patient with systemic commitment.

VELAZCO, C.C.*; YACHAS, R.; PUPPIN-RONTANI, R.M.

This study aimed to relate a dental treatment of a special needs child under general anesthesiaA 7 years and 6 months old patient, male, was admitted to Pediatric Dentistry Service HSB, Lima, Peru. Medical History: cytomegalovírus, without breastfeeding, strabismus, hidrocephalus, mental retardation, hearing impairment, nystagmus and penicillin allergy. No previous dental experience or fluoride exposure, no oral health education and high carbohydrate intake. Oral clinical examination: Negative Frankl´s scale patient, widespread tooth decay with endodontic commitment (55-54-53-63-64-65-75-74-84-85), chronic gingivitis and high caries/activity risk. First visit: Oral health parents orientation, anamnesis, odontogram and radiographs. Treatment plan: oral hygiene education, prophylaxis, topical fluoride application and treatment under general anesthesia. Treatments performed: Pulpotomies (55-54-75-74-84-85), Pulpectomies (53-51-61), Glass-ionomer cements and composite restorations (55-54-75-74-84-85), acetate crowns (53-51-61) and extractions (64-65). Proservation by pediatric dentistry service for 60 days in weekly visits, checking the decrease of gingival and plaque index, pain absence, getting fed properly with diet modification and positive behaviour at dentist visit. It concludes that treatments performed contributed to improve the patient´s general condition with consequent enhance of quality of life.

195 Pregnancy and dentistry: guidelines on oral hygiene of neonates

RANGEL, C.P.*; QUELUZ, D.P.

This study is about pregnant and dentistry: guidelines on oral hygiene of neonates. The knowledge about the importance of baby's oral healthy is essential information to stablish healthy habits. The mother should clean the baby's mouth as soon as he was born, after the breastfeeding. It can be done with a clean cloth or diaper, moistened gauze or finger cots. Once the first teeth erupt, the modified tooth brush must be used. This tooth brush has long cable, tiny head and soft bristles. The toothpaste must be used just in the second or third year of life, and the quantity used corresponds to a grain of pea. The best thing would be if the mother visited a dentist before the baby is born, but even so, the baby must go to a doctor in the first year of life. The dentist will know how to explain the importance of nutrition, healthy habits, deciduous teeth, and other things. Other appointments must be done with regularity if there are risk factors, such as to much sugar, or bad habits as pacifiers and bottles. The conclusion is the most important of all, is to motivate the mother so she can stablish this habit in her life – in preference before the baby is born – and maintain it for her and the baby. This habit will increase his chance of never having an oral disease as caries. This is crucial for prioritizing public that levels of primary care oral health.

196 Analysis of the need to use a prosthesis in institutionalized elderly, using dental and normative social indicator

GARCIA, C.N.*; MENEGHIM, M.; OLIVEIRA, A.; PEREIRA, A.; AMBROSO, G.

Aim: The study was to analyze the impact in determining the diagnosis of need for prostheses in institutionalized elderly, using as criteria the socio-dental indicators and objective diagnostic criteria. **Methods:** The sample consisted of individuals aged over 60 years, both genders. The study population was selected in the institutions of the Old Peoples Home and Home Bettel. 298 randomly selected subjects, residents of the two institutions surveyed were evaluated. The sample consisted of 208 seniors who met the inclusion criteria of the research. Os research instruments used for subjective assessment were GOHAI, IODD, questionnaires identification and demographic data, clinical and regulatory indicators. The questionnaires were administered in the form of individual interviews in order to create a friendly dialogue and no inhibition, embarrassment or interference responses. After collection, the data were grouped and inserted into a model for the joint assessment between the pattern of needs perceived by the patient, sociodemographic variables, normative criteria of evaluation and socio-dental. **Results:** The results were evaluated by descriptive analysis, then the bivariate analysis with the chi-square test and multivariate data analysis. Variables with p <0.20 were tested in multivariate logistic regression remained in the model if p <0.05. The study showed high prevalence of edentulism among institutionalized elderly in need of prostheses was high in normative evaluation. **Conclusions:** There is a tendency to use smaller and greater need for dental use among the elderly who have bad oral health self-assessment and self-declaration of need for prostheses were close assessment with diagnostic criteria normative.

197 Epidemiological survey and preparation of educational and preventive strategies

ZEEBERG, C.*; SANTOS, F.R.F.; BATISTA, M.J.; SOUSA, M.L.R.

Aim: Preventive educational programs for children are extremely important for the promotion of health. This study was to evaluate the oral health of preschool children and develop educational and preventive strategies based on caries risk. **Methods:** The study was approved by the Research Ethics Committee FOP/UNICAMP (051/2013). Parents and guardians signed the Term of Free and Informed Consent, and filled out the socioeconomic questionnaire. Preschool children were examined for caries (DMFt) and gingival condition in accordance with the World Health Organization (WHO) criteria, and caries activity in accordance with ICDAS II (International System of Assessment and Caries Detection). Children of the test group were classified according to caries risk to participate in preventive activities and all participated in the educational program. Most parents of children in the test and control group had an income of over R$ 1,000.00, and education up to high school level. **Results:** The mean number of decayed surfaces was 0.47 (± 1.25) in the test group, and 0.77 (± 3.17) in the control group. The DMFt was 0.94 (± 2.87) for the test group, and 0.94 (± 3.42) for the control group. The two groups had the same mean number of dental white spot lesions: test group, 0.20 (± 0.93) and control group, 0.20 (0.69). Children with high caries risk received fluoride varnish applications quarterly. **Conclusions:** This study is distinguished by considering the early stages of decay. Therefore, with this practice, the results of preventive educational programs are expected to be more effective in disease control.

198 Can acupuncture help to increase amplitude of mouth opening?

GRILLO, C.M*; CANALES, G.D.T; WADA, R.S; BARBOSA, C.M.R; BERZIN, F.; SOUSA, M.L.R.S

Aim: To evaluate the results of acupuncture treatment compared with a control group (flat occlusal appliance), to help increase the amplitude of mouth opening in patients with myogenic TMD. **Methods:** The sample consisted of 40 women, 18-45 years old, with myogenic TMD according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD Axis I, groups Ia and Ib), with energy imbalance and predominance of Yang Liver Ascension, identified by the pulse Renying and Cunkou and by observation of the tongue. Patients were randomly divided into two groups: acupuncture (treated with manual acupuncture, in four sessions, one per week, twenty minutes. Acupoints: LI4, LI11, GB20, GB21, GB34, TE23, BL2, CV23 and LR2); and splint (treated with flat occlusal appliance). The range of mouth opening (ROM) was assessed using a millimeter ruler, pre and post-treatment, initial (RMOi) and final (RMOf), respectively. **Results:** The mean age of patients was: 30 ± 6.59 in the acupuncture group and 30 ± 6.83 in the splint group and 82.50% of patients were Caucasian. In both groups there was an increase in the extent of mouth opening, on an average 5.4mm in the acupuncture group (RMOi: 36.95 (8.50), RMOf: 42.35 (4.28), and in 4.35mm splint group (RMOi: 36.95 (8.32), RMOf: 41.30 (6.50), ($p<0.05$, t-test, with 5% level of significance). **Conclusions:** Both treatments resulted in increasing mouth opening measurement in a short period of treatment.

199 Acupuncture and occlusal appliance in pain management of temporomandibular dysfunction evaluated at two pain scales

GRILLO, C.M*; CANALES, G.D.T; WADA, R.S; BARBOSA, C.M.R; BERZIN, F.; SOUSA, M.L.R.S

Aim: Evaluate the intensity of pain through two unidimensional scales for measurement of pain in women with chronic pain of temporomandibular disorder (TMD). **Methods:** The sample consisted of 40 patients with myogenic TMD, aged 18-45 years, were randomly divided into two treatment groups: acupuncture (treated with traditional acupuncture) and splint (treated with flat occlusal appliance). Were assessed within a month of treatment. Pain intensity was measured using the Numerical Pain Scale (EN) and Visual Analog Scale (VAS), denominaded initial (VASi and ENi), pre-treatment and final (VASf and ENF), post-treatment. Patients who received acupuncture were treated in four acupuncture sessions a week, lasting twenty minutes. Patients treated with flat occlusal appliance after installation and adjustment of the device, returned four sessions, once a week, for adjustment of occlusal contacts of the device. **Results:** The reduction in pain intensity was similar and significant (p <0001) in both ranges for the two treatment groups. There was no significant difference between the scales (p> 0.05), mean (sd) groups: acupuncture (VASi: 5.96(1.41), ENi: 6.0(1.97) e VASf: 1.09 (1.29), ENf: 1.20(1.10) and splint (VASi: 6.41(1.89), ENi: 5.80(2.24) and VASf: 1.19(1.59), ENf:1.55 (1.70). **Conclusions:** In this study, no difference in the measurement of pain intensity was observed.using two scales of measurement of pain (VAS and EN).

200 Calcium and fluoride extraction from biofilms containing high mineral concentrations

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Minerals retained in dental biofilm can function as reservoirs of these ions, interfering with the caries process. Their extraction for quantitative analysis is usually performed with strong acid (HCl) but in samples containing high mineral content, as precipitated calcium fluoride (CaF2), only one extraction may not be enough for the total removal of this mineral. **Aim:** Thus, the objective this study was to standardize the extraction of calcium (Ca) and fluoride (F) from a test biofilm containing precipitated CaF2. **Methods:** Tests of total extraction of Ca and F were performed in pellets of S. mutans, which have been treated with supersaturated solutions of CaF2. This proposed protocol, which uses 3 extractions with 0.5 M HCl of 1 hour each, with decreasing volumes (1, 0.5 and 0.2 mL/10 mg biofilm), was then tested in samples of a test biofilm, collected from 3 volunteers from an in situ experiment. **Results:** The tests biofilms were treated with: G1: 225 ppm F (control group, no Ca); G2: 1 mM Ca and 225 ppm F; or G3: 10 mM Ca and 225 ppm F (both supersaturated with respect to CaF2). Decreasing Ca and F concentrations (nmol/mg, mean±SD) were observed in the 3 sequential extractions, respectively (Ca= G1: 13.5±2.6; 6.2±3.6; 6.1±2.7; G2: 228.8±42.1; 12.2±5.5; 10.5±6.0; G3: 1471.1±291.2; 19.8±4.8; 15.5±2.3; F= G1: 2.5±1.0; 0.07±0.05; 0.03±0.01; G2: 319.2±5.3; 2.1±0.5; 0.09±0.05; G3: 1300.9±305.2; 17.7±7.6; 0.4±0.3). **Conclusions:** This protocol was adequate for the extractions of minerals from biofilm samples rich in Ca and F.

201 Angioleiomyoma of the lip: histological and immunohistochemical characterization of a case

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Angioleiomyoma is a relatively common neoplasm, representing about 5% of all benign soft tissue tumors, occurring more typically in the skin of lower extremities and rarely in oral tissues. It is composed of varying-size vascular channels and proliferating smooth muscle cells. Oral angioleiomyoma mostly affects lips, palate, buccal mucosa and tongue; generally appearing as an asymptomatic bluish or reddish submucosal slow-growing nodule. Surgical local excision is the indicated treatment and recurrence is not expected. We present the main histologic and immunohistochemical characteristics of an angioleiomyoma of the lower lip in a 29-year-old female patient. Microscopic analysis on H&E sections revealed a well-circumscribed proliferation of spindle cells, surrounding and blending with the vascular smooth muscle wall, which appeared thickened, blood vessels varied in diameter and size. It is thought that tumor smooth muscle cells, probably arise from the vascular wall, this muscular phenotype of proliferating cells was confirmed by immunohistochemistry, showing strong and diffuse positivity for a-SMA (a-Smooth Muscle Actin) and H-Caldesmon antibodies. CD34 evidenced the vascular spaces within the smooth muscle proliferation. It is important for clinicians and oral pathologists to know and consider this benign tumor during evaluation of nodular lesions on the lips, in which clinical suspicion of angioleiomyoma use to be unusual.

202 Effects of phototherapy employing light emitting diodes at 940 nm in the regeneration of bone defects in rats

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Surgical procedures, trauma and injury can cause bone lesions and difficult bone regeneration. The use of phototherapy immediately or during late periods after surgery is interesting due to its anti-inflammatory and analgesic effects and its ability to increase tissue repair at wavelengths ranging from 604 to 940nm. **Aim:** The objective of this study was to evaluate the effects of the 940nm LED irradiation under bone healing and inflammatory markers in bone defects made in rat calvaria. **Methods:** Male Wistar rats was submitted to light irradiation 4 J/cm2 energy daily applied, up to seventh day, at 940nm wavelenght. The animals were sacrificed at 2 and 14 days postoperatively for morphometric analysis of areas of bone repair, bone resorption and inflammatory infiltrate. Control animals were submitted to the same procedures, but with the equipement turned off. After two days, LED group presented reduced number of inflammatory cells compared to control one. Fourteen days after surgery, reduced areas of bone resorption and increased areas of primary ossification could be observed in LED group. **Results/Conclusions:** The results suggest that the LEDtherapyat 940nm reduced postoperative inflammation, speed up the bone formation and reduced bone resorption areas.

203 SEM (Scanning Electron Microscopy) evaluation of the radicular dentin subjected to different treatments.

SANTOS, C.A.*; POLETTO, D.; POLETTO, A.C.; CAVALARO, A.; BUREY, A.; GARBELINI, C.C.D.; HOEPPNER, M.G.

Aim: The purpose of this in vitro study was to evaluate the effect of different radicular conduct irrigation solutions used passively or actively (associated or not with an ultrasonic device (US)), after the radicular preparation to intraradicular post, regarding the factors: 1) smear layer removal, and 2) opening of dentinal tubules, by scanning electron microscopy (MEV). **Methods:** Forty five uniradicular teeth were endodontically treated and randomized in 9 groups (G). Following, the roots were divided in the vestibule-lingual way to MEV analysis (Philipps-FEI, Quanta 200), increased 2000x. Kruskal-Wallis test, followed by Mann Whitney U post-test (p<0,5), found differences between the groups. EDTA showed the best results for both factors, regardless of the application method (passive or active). The US was effective only when associated to 2,5% NaOCl (p < 0,05), for the variable opening dentinal tubules. When evaluated using MEV, in the cervical, middle and apical thirds, EDTA showed statically superior regarding smear layer removal in the middle and apical thirds (p < 0,05), in the cervical third there was no statistical difference between the groups. **Results:** Regarding the opening of dentinal tubules variable, EDTA was statistically more effective at cervical and middle thirds (p < 0,05), there was no statistical difference between the groups in the apical third. **Conclusions:** NaOCl applied actively was more effective than NaOCl applied passively in the middle third, and AP the active method was more effective than the passive AP in the cervical third.

204 The importance of planning in rehabilitation with mandibular implant-retained fixed prosthesis

ROCHA, C.O.M.*; PEREIRA, R.P.; LONGHINI, D.; CARDOSO, K.V.; BASÍLIO, M.A.; ARIOLI-FILHO, J.N.

The clinical success of treatment with implant-supported dentures depends on several factors that should be included in planning. This literature review aims to dissert on the importance of correct planning of mandibular implant-retained fixed prosthesis. The oral rehabilitation of mandibular edentulous patients aims to provide more stable mandibular prosthesis, improving quality of life and oral health, is therefore a prosthesis in which the functional aspect predominates. The rehabilitation treatment with implants and implant-retained prosthesis allows greater stability, however, several factors related to planning, such as biomechanics, number and location of implants, abutment types, cantilever extension, patient selection and a correct reverse planning, should be respected, so that together, they can play a predominant role in the success and longevity of this type of oral rehabilitation. Thus, it is essential that professionals involved are aware of the factors related to planning so that they can realize it carefully.

205 Cantilever in mandibular implant-retained fixed prosthesis

ROCHA, C.O.M*; CORREIA, D.D.C.; PEREIRA, R.P.; LONGHINI, D.; CARDOSO, K.V.; BASÍLIO, M.A.; ARIOLI-FILHO, J.N.

The dental implants placement in edentulous patients have been shown to increase retention and stability when compared to conventional complete dentures. The oral rehabilitation of edentulous mandible with osseointegrated implants is a secure way of treatment with high success rates. One indication of this technique is rehabilitation of edentulous patients with mandibular implant-retained fixed prosthesis positioned in the anterior region, extended distally by segments of bilateral bars known for cantilever. When planning a complete implant-supported fixed prosthesis with distal extension, several points should be previously assessed in order to avoid some problems that may interfere with the success and longevity of treatment, as well as the biomechanical of the prosthesis / implant / bone surrounding system. The objective of this study is to perform a literature review covering some of the main aspects related to the biomechanics of mandibular implant-retained fixed prosthesis with cantilever as the cantilever length and its relationship with bone tissue, tension in the distal implants, inclination of distal implants and number of implants. Thus enabling the professional has a greater knowledge for achieving a correct planning.

206 Strain evaluation in fixed implant-supported prostheses: a comparison of methodologies

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Aim: This study evaluated the stress and strain values and distribution pattern in the fixed implant-supported prostheses with vertical marginal misfit using two methodologies: strain gauges and three dimensional finite element analyses. **Methods:** Three-element fixed implant-supported prostheses frameworks (G1) and full-arch fixed implant-supported prostheses frameworks (G2) were casted in CoCr alloy (n=10). Stone cast model were manufactured with marginal misfit of 150 μm using modified mini-abutments analogs. The prosthetic screws were tightened with 10Ncm and marginal misfit measurements were performed in optical microscope. Then, both screws were tightened and strain gauge analyses were performed. Three-dimensional finite element models were manufactured to simulate the laboratorial conditions described above. The virtual models and boundary conditions were obtained in Rhinoceros 4.0 SR8 software (McNeel North America, Seattle, WA, USA) and imported to ANSYS Workbench 12.0.1 program, in which meshes with tetrahedral elements with 10 nodes were generated. In order to perform the finite element analyses all materials were considered to be homogeneous, isotropic and linearly elastic. **Results:** The mean values of marginal misfit were 195μm (G1) and 301μm (G2). The values obtained by strain gauge analysis were 600μstrain (G1) and 420μstrain (G2). In finite element analysis the maximum principal elastic strains in bone tissues were 713μstrain (G1) and 1305μstrain (G2). **Conclusions:** Based on the results this study, it can be concluded that both methodologies are effective for the strain evaluation on the implant-supported system.

207 Cytotoxicity and anesthetic efficacy of lidocaine encapsulated in poly (epsilon-caprolactone) nanocapsules

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Aim: To evaluate the anesthetic duration and cytotoxicity of formulations of lidocaine (LDC), lidocaine associated to poly(epsilon-caprolactone) nanocapsules (LDC-Nano) and lidocaine with 1:100,000 epinephrine (LDC-Epi). **Methods:** Cytotoxicity was evaluated on HaCaT cells. After reaching semi-confluence the cells were exposed to LDC, LDC-Epi and LDC-Nano solutions in decreasing concentrations for 1h and 24h. Cell viability was assessed using MTT assay in microplate reader. Anesthetic efficacy of the solutions were assessed using a rat paw wound model. Twenty-four hours after surgical incision, hyperalgesic paw wounds were infiltrated with 0.3 ml of 2% of LDC, LDC-Epi e LDC-Nano (n=6/group) and anesthesia tested by increasing force application with von Frey hairs. **Results:** The concentrations able to inhibit 50% of viable HaCaT cells (IC50) after 1h exposure to LDC, LDC-Epi and LDC-Nano were respectively: 0.48%; 0.58% and 0.47%. The combination of LDC-Epi showed higher IC50 than the other treatments ($p<0.0001$, analysis of non-linear adjustment); Nano-LDC and LDC did not differ between each other ($p>0.05$). After 24 hours of exposure to LDC, LDC-Epi and LDC-Nano the IC50 were respectively 0.081%; 0.057% and 0.075%. The duration of analgesia (mean ± standard deviation, in min) were 23.5 ±5; 43.5 ±8; and 118 ±10.5 respectivelly for LDC, LDC-Nano and LDC-Epi; statistical difference was seen among all formulations (Anova/Tukey $p<0.05$). **Conclusions:** The encapsulation of lidocaine in nanocapsules poly(epsilon-caprolactone) does not increase lidocaine toxicity after 1h-exposure of HaCat cells and it is less toxic than epinephrine after 24h-exposure. The encapsulation also increases anesthesia duration when compared to plain lidocaine.

208 Influence of prosthetic component on the stability of total fixed prostheses in two levels of adaptation

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Aim: The biomechanics of overcast components for extensive dental prosthesis is unknown. The objective was to evaluate the effect of mechanical cycling and prosthetic cylinder in reverse torque and misfit total fixed prostheses infrastructure (TFPI) on two levels of adaptation. **Methods:** IPTF on 5 implants were cast in Co-Cr using castable cylinders (C) or overcast (S) (n = 10). Two levels of adaptation were created using models for the experimental groups: passive (AP) and with misfit (NP) (150μm). The bolts were torqued to 20Ncm (mini pillar) and 10Ncm (prosthetic), and after 24 h, the reverse torque was evaluated. The misfit was measured with an optical microscope for testing the single screw. The samples were subjected to 106 cycles (2Hz/280N) and final measurements were made. **Results:** The results were submitted to ANOVA-2 factors/Tukey HSD test (α = 0.05), unpaired t test. The IPTF-S had higher misfit than the TFPI-C ($p < 0.05$). The prosthetic cylinder did not influence the loosening of screws ($p> 0.05$). The TFPI-AP group showed lower misfit than the TFPI-NP ($p <0.05$). The mechanical cycling did not influence any of the studied groups. The TFPI-S-AP group showed greater reverse torque that the TFPI-S-NP at baseline ($p = 0.0022$). Correlation between reverse torque and misfit ($R = -0.33$, $p = 0.0022$). **Conclusions:** The use of components with non-machined base provides better adaptation in large prostheses; the reverse torque is reduced in prostheses with large magnitude of maladjustment, independent cylinder used.

209 Clinical analysis of oral vascular lesions treated by sclerotherapy

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Vascular lesions are changes that often occur in the mouth. Are mainly classified into vascular malformations, hemangiomas and varicose veins. These lesions may be present at birth or develop in early childhood or adulthood. When they are present at birth are usually malformations or hemangiomas and tend to regress to a child's growth. However, there are situations in which special treatment is not required regress. The aim of this study was to review the medical records of patients who underwent treatment by sclerotherapy of vascular changes in our institution, to obtain information to improve patient care. In the 1990-2010 period were admitted to care about thirteen thousand patients, 486 (3.7%) had oral vascular lesions. Of these, 90 were treated by sclerotherapy. It was observed that vascular lesions occur in patients of different ages with no predilection for gender. Clinically presented as an increase in nodular volume, asymptomatic, variable size and located most often in the lips, buccal mucosa and tongue. Treatment with sclerosing agent, has proved a safe, inexpensive and effective for this type of injury.

210 Gingival dimensions and phenotypes in Blacks

STEFANO, A.F.*; SILVA, C.O.; REBONATTO, S.; MARSON, F.C.

Aim: The objective of this observational cross-sectional study was to investigate gingival characteristics and periodontal phenotype in a Black population. **Methods:** Seventy Black volunteers had the maxillary central and lateral incisors and canine evaluated for thickness (GTH) and width (WAG) of attached gingiva, probing depth (PD), crown length (CL) and width (CW) and crown length/width ratio. A cluster analysis was done for periodontal phenotype characterization. **Results:** In this population, the gingival dimensions for the central incisor were: WAG=3.7±0.8 mm; GTH=0.9±0.2 mm. The mid-buccal PD was 1.0±0.4 mm, while CW/CL was 0.82±0.13. The corresponding values (WAG, GTH, PD, CW/CL) for the lateral incisor were: 3.6±1.0 mm, 1.0±0.3 mm, 1.0±0.5 mm, and 0.70±0.10; for the canine, the values were 3.1±0.9 mm, 1.0±0.3 mm, 1.0±0.4 mm, and 0.71±0.10. **Conclusions:** These results indicate that the gingival dimensions in Blacks fall within the range of dimensions previously reported for White and Asian populations.

211 Influence of liquid glass on the surface free energy, color change and Streptococcus mutans adhesion in composite resin

YANIKIAN, C.R.F.*; STAPE, T.H.S.; MARTINS, L.R.M.

The liquid glass (NPLG, Nanopool®) is a silica based solution used for waterproofing general surfaces. According to manufacturer, it forms a thin hydrophobic layer and is non-toxic and antimicrobial. **Aim:** Therefore, this study is to evaluate the NPLG used as a surface sealant on composite resin and its effects on surface properties, discoloration and bacterial adhesion. **Methods:** Filtek Z250XT (3M ESPE) discs were made and divided into 2 groups: polishing (control) and polishing with NPLG application (experimental). Eight samples of each group were analyzed in the goniometer to determine the total surface free energy (mJ m-2) and contact angle (Ɵº) formed by water on the composite. The color change was evaluated after 60 days of red wine staining and applying ΔE according to the CIE L*a*b* system. Other 4 samples from each group were subjected to bacterial adhesion test, which colony forming units counting (CFU/ml) of Streptococcus mutans was done (strain UA159). Two discs from each group were observed in Scanning Electron Microscope. Only the bacterial adhesion data were normalized by logarithmic calculation, since all other values were normal and homogeneous. **Results:** Thus, one-way ANOVA and post-hoc Tukey test was applied for each test. The NPLG reduced total surface free energy ($p < 0.01$) and increased contact angle ($p < 0.01$), also decreased the composite color change ($p < 0.001$), but had no effect on bacterial adhesion ($p = 0.8142$). **Conclusions:** Therefore, the NPLG makes the resin composite surface highly hydrophobic, reduces its staining but does not decrease the S. mutans adhesion.