

### Influence of feldspathic ceramic shade and cement photoactivation period on microhardness of dual resin cement.

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The feldspathic ceramic shade and photoactivation period of the cement, when associated, can alter the hardness of the resin cement. The aim of this study was to evaluate the influence of the photoactivation period and feldspathic ceramic shade on the microhardness of dual resin cement. One hundred bovine incisors were selected for this study. Their roots were cut off and their crowns were embedded in polystyrene resin. Next, they were randomly divided into 20 groups ( $n = 5$ ). Standardized cavities (4.0 mm in diameter and 1.0 mm in depth) were prepared on the buccal surfaces. Ceramic restorations (Noritake Ex 3) (4mm in diameter and 4mm thickness) were fabricated in shades A1, A2, A3, A3.5 and A4. A dual resin cement (Rely X-ARC) was inserted into each prepared cavity and a mylar strip was positioned over it. The ceramic pastille was coupled to a perforated metal device and positioned between the cement and the light source, and was light cured for 40, 80, 120 and 160s. Vickers hardness test was performed on the cement layer, with a 50g load application for 30s, making 5 indentations *per* specimen. Two-way ANOVA (4x5) and Tukey's test ( $\alpha = 0.05$ ) showed difference for the factors photoactivation period and shade. The results (in MPa) were: A1t40 (18.1±1.4)a; A1t80 (20.8±1.9)a; A1t120 (21.0±1.1)a; A1t160 (22.4±2.3)a; A2t40 (13.8±1.3)b; A2t80 (19.4±1.0)a; A2t120 (20.1±1.4)a; A2t160 (21.4±1.7)a; A3t40 (11.9±2.2)b; A3t80 (18.3±0.8)a; A3t120 (19.4±1.7)a; A3t160 (20.3±4.0)a; A3.5t40 (9.1±2.2)c; A3.5t80 (18.9±1.9)a; A3.5t120 (18.7±2.1)a; A3.5t160 (19.8±3.0)a; A4t40 (6.5±1.3)d; A4t80 (15.7±2.4)b; A4t120 (17.4±1.1)ab; A4t160 (19.7±2.8)a. The increase in feldspathic ceramic shade saturation decreased the hardness when polymerized for 40s. The increase in polymerization time to 120 and 160s decreased the influence of ceramic shade saturation on cement hardness.

## Oral Diagnosis

### Study about oral health of elderly people resident in the "São Francisco de Assis Home"

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The increase of the Brazilian elderly population has placed in evidence physiological processes of this age range, adding resources to minimize or to delay undesirable alterations. The aim of this study was to evaluate the oral conditions of 76 aged residents of the "São Francisco de Assis Home" of the city of Araraquara. The patients were examined at the asylum facility and data from clinical interview and oral examination were collected. Most patients were female (61.8%) and the mean age was 76 years. Regarding systemic alterations, 92.4% of the aged presented some kind of health problem, being mostly cardiovascular alterations (43.3%) and psychiatric/neurological disorders (28.9%). With respect to medications, the most used were antihypertensive and psychiatric drugs (28.1% and 24.0%, respectively). Regarding oral hygiene, 34.7% reported to clean the mouth three times a day, but most patients presented bad oral hygiene and removable dentures in poor cleaning conditions. Also, injuries and/or alterations in the oral mucosa were evaluated, the most prevalent being: actinic cheilitis (13.4%), non-papillated tongue (10.4%), furred tongue (10.4%) and candidiasis (6.6%). This study evaluated the oral conditions of elderly individuals aiming at instituting a guidance program directed to this population in order to improve life quality of this age group.

### Clinical evaluation of the treatment of denture-related stomatitis by *Candida albicans* using therapeutic protocols with systemic and topical antifungal agents associated or not with hygiene orientation

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Denture stomatitis can be manifested on the oral mucosa as lesions that are associated with the use of complete dentures. This study evaluated, comparatively, the effectiveness of four therapeutic protocols for denture-related stomatitis in complete denture wearers treated at the Dental Course of UFES. The patients were submitted to clinical exam to verify the presence of denture-related stomatitis and mycological exam of the palatal mucosa for isolation and identification of *Candida* spp. The patients were randomly assigned to four groups, according to the therapeutic protocol: Group I - administration of a systemic antifungal agent (fluconazole); Group II - administration of a topical antifungal agent (nistatin); Group III - administration of a systemic antifungal (fluconazole) associated with oral hygiene protocol; and Group IV - instructions of complete denture cleansing. In conclusion, the most efficient treatment approach to the denture-related stomatitis was the association of systemic antifungal therapy (fluconazole) with instruction on oral hygiene.

### Temporomandibular dysfunction and ear symptomatology: a clinical report.

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The fact that different pathologies may have the same signs and symptoms reinforces the importance of making a correct diagnosis and treatment plan. It also shows that the differential diagnosis is a very important parameter to distinguish TMD and otological problems. In the case reported hereby, audiological exams and occlusal splint treatment were undertaken. After occlusal splint treatment, the only remaining complaint was essentially tinnitus, which was associated with frequent and enduring exposure to intense noise in the workplace. Therefore, identification of each pathology, occurring simultaneous or not, guides patient referral to the appropriate healthcare professional and, consequently, adequate treatment.

### Transmigration of mandibular premolar: a case report

Alves, D.B.M.; Pedrosa, E.F.N.C.; Carvalho, I.M.M.; Freitas, D.Q.; Rodrigues, A.C.; Andreo, J.C.

Transmigration is the name given to an ectopia in which teeth are found in areas distant from the alveolar processes. The initial angulation of the mandibular second premolar germ and the early loss of the permanent first molars can influence the distal migration of the mandibular second premolar. Some studies have reported that ectopic teeth can be found in a variety of places of the oral cavity and also in other areas of the human body. There are reports of teeth in the maxillary sinus, mandibular condyle, coronoid process, mandibular angle, orbit, palate, mentum and also the skin. Previous studies showed that in children with cleft lip and palate, the occurrence of dental anomalies is higher than in normal children. The objective of this study is to report a case of migration of tooth 35 in a patient under treatment at the Hospital for Rehabilitation in Craniofacial Anomalies (HRAC-USP), and also to investigate whether the migration process is similar to that occurring in individuals without cleft lip and palate. The migration of tooth 35 was confirmed by 8 panoramic radiographs and one periapical radiograph that were taken during the patient's treatment between 1978 and 2002, and available at the fling service of the Department of Dental Radiology of HRCA (HRAC-USP). It may be concluded that the distal migration of the left mandibular second premolar (tooth 35) when associated with the presence of cleft lip and palate is a quite rare condition because, as far as it could be ascertained, there are no similar cases previously reported in the literature, but it occurred in a similar way in individuals without cleft lip and palate.

### An atypical lesion caused by onychophagia

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Onychophagia is defined as the habit of biting the nails. It is a nervous, repetitive, embarrassing, socially undesirable habit that can be found in 6-60% of the world population. The aim of this study is to describe an atypical lesion associated with onychophagia and to present a brief literature review on this habit. An adult male patient undergoing routine dental care reported the development of an unguinal lesion on the left thumb. The nail presented an uneven surface, with reduced thickness, a depression over the lunula and a visible petechia underneath the lesion. As the patient reported exacerbation of his parafunctional habits, it was clear the existence of an association between these habits and the lesion. A counseling approach was planned in order to instruct the patient to avoid biting the nails and removing the surrounding epithelium. After two months, the lesion had disappeared secondary to nail growth. It could be observed how important the dentist could be on detection of onychophagia and referral to the patients to the most appropriate treatment.

### Cone bean technology

Moron, B.M.; Azevedo, B.C.; Azevedo, J.R.; Capelozza, A.L.A.

Conventional x-ray imaging is essential to settle a diagnosis of maxillary diseases. The limitations in the interpretation of the images are mainly due to the formation of a two-dimensional image of three-dimensional structures. Recently introduced to the market, the Cone Bean technology allows 3D facial image acquisition and reconstruction. This technological advance contributes significantly to the study of patients who need facial reconstructions or dental implants, and to the more accurate identification of the diseases that affect the bone and dental structures. The attainment of 3D images still allows the construction of archetypes that not only assist in the surgical planning, but also reduces the surgical time considerably. Image production, indications, advantages and cost of this new technology are addressed in this work.

**Keratoacanthoma and squamous cell carcinoma: differential diagnosis**

Boos, F.B.D.J.; Iwaki, L.C.V.; Souza, L.R.K.; Ghizzi, V.C.; Misawa, M.Y.O.; Farah, G.J.

The keratoacanthoma denomination was firstly used by Rook, Winster (1950), describing the clinical and histological course of the lesion. Historically, this entity has been included as synonymous of self-healing squamous cell carcinoma, sebaceous molluscum and pseudocarcinomatous molluscum. It is defined as a benign epithelial neoplasm, originated from the superior portion of the sebaceous gland of the hair follicle. Clinically, it presents as an exophytic nodule, central keratin-filled crater, normally not exceeding 1.5 cm in diameter, firm, covered by rapid-growth normal epithelium. In the lower lip, a differential diagnosis should be undertaken with squamous cell carcinoma because this is an area of high prevalence of this pathology and the keratoacanthoma resembles very much clinically and histopathologically the squamous cell carcinoma. Treatment of keratoacanthoma requires excisional or deep incisional biopsy, with the inclusion of the clinically normal adjacent epithelium in order to obtain an accurate histopathologic interpretation. As a treatment approach, surgical excision presents better esthetic results compared to a possible spontaneous remission. The aim of this work is to report the case of a patient who presented with a well-circumscribed solitaire nodule, located in the lower lip, where an incisional biopsy was carried out. After the histopathologic diagnosis, complete removal of the lesion was performed. The etiology, clinical and histological characteristics, the differential diagnosis from the squamous cell carcinoma, and the possible treatment options are discussed.

**Identifying and correcting errors in periapical x-rays**

Bersanete, G.R.; Lautenschlager, G.A.C.; Capelozza, A.L.A.

The correct radiographic interpretation of the structures that surround the teeth and bone in the jawbone and jaw and of the pathologies that occur in this region, allows the dentist to make a more accurate diagnostic elaboration. Radiographic errors of prescription, technique and processing make this interpretation difficult or even impracticable. Currently, the use of film holders for periapical and interproximal radiographic techniques minimizes errors of image elongation and shortening. However, errors in the exposure and processing of periapical films are still frequent. The objective of this work was to use exposed radiographic films with errors to assist undergraduate students and dentists in the identification and correction of errors of periapical radiographic technique and processing. These errors, when not solved, impair image interpretation and diagnosis of the disease, resulting in unnecessary exposure of the patient to radiation. All procedures to be discussed are in accordance with the guidelines established in the Regulation #453 of the Ministry of Health, issued in June 1998.

**Adenoid cystic carcinoma of the palate: a case report.**

Freitas, P.; Consolaro, A.; Gurgel, C.N.C.; Lara, V.S.

A 63-year-old white female presented to the clinic with the chief complaint of a "non-healing wound on the palate" with 1-year history and periods of pain and bleeding. On intraoral examination, an ulcer with elevated borders was observed on the palate, presenting approximately 2.5 cm in diameter. An incisional biopsy was performed and the lesion was sent to histopathological examination at the Oral Pathology Laboratory. The microscopic analysis revealed nests and cords of basaloid hyperchromatic epithelial and myoepithelial cells, either forming a solid pattern, a cribriform pattern with microcystic spaces or tubular pattern with ductiform structures. Mild perineural invasion was observed and the cystic and ductiform spaces were filled with mucoid material. Based on the microscopic features, the diagnosis of adenoid cystic carcinoma was settled, and the patient was referred to an oncologist. Adenoid cystic carcinoma is one of the most common malignant salivary gland tumors and, when it affects the minor salivary glands, the palate is the most frequent location. Clinically, it presents as a painful, slow-growth mass, exhibiting a flat or ulcerated surface. Microscopically, it is characterized by ductal and myoepithelial cells arranged in three defined patterns: cribriform, tubular and solid, and these patterns can be associated. Perineural invasion is a characteristic microscopic feature of this lesion. The treatment of choice is radical surgery combined with radiotherapy. It has a trend for local recurrences and distant metastases and the prognosis depends on many factors, such as, the histological type, clinical stage, bone invasion, location and tumor size. The case of adenoid cystic carcinoma reported hereby highlights the importance of the diagnosis of palatal lesions, which may be malignant salivary gland tumor and mimic lesions associated with trauma or infections.

**Infected fibro-osseous lesion: case report**

Moino, A.L.U.; Araújo, M.L.; Rodrigues, M.T.V.; Sant'Ana, E.; Consolaro, A.; Damante, J.H.

A 31-year-old white female reported pain and infection on the maxilla for 2 months. On oral examination, a swelling on the left maxilla, absence of maxillary left canine and retention of deciduous left canine were verified detected. The time evolution was 6 months. A vestibular fistula and suppuration were observed. Panoramic, periapical and occlusal radiographs disclosed a great radiolucent area intermingled with irregular radiopacities extending from the left lateral incisor to the left second premolar and a slight migration of the root of the maxillary left lateral incisor. The left canine was displaced superiorly at a horizontal position, transversely in a buccopalatal direction and involved into the mass. Computed tomography (CT) highlighted the relations of the lesion with the nasal and oral cavities. The continuity with the adjacent bone with no precise limits was well demonstrated by the CT scan. The patient was submitted to surgical removal under general anesthesia and the microscopic examination of the piece revealed osseous areas with cemento-like formations associated with intense cell proliferation, and highly sclerosed cementoossifying material. There was also normal bone, inflammation and biofilms, which led to the diagnosis of an infected fibro-osseous lesion. After 1 year of follow up, the patient is in general good conditions.

**Dentigerous cyst associated with the development of complex odontoma: case report**

Ghizzi, V.C.; Ferreira, G.M.; Filho, L.I.; Iwaki, L.C.V.

The odontoma is an odontogenic tumor in which there is a complete differentiation of the cells, reaching enamel, dentin and a variable amount of cementum and pulp. The odontoma is involved by a fibrous capsule that may occasionally develop a dentigerous cyst, which seems to originate from the enamel, being generally an asymptomatic and slow-growth lesion. Hirshberg et al. (1994) reported the association of odontoma and odontogenic cyst in 24% of the studied cases, which demonstrate that this is an unusual lesion that should have an accurate diagnosis. A 28-year-old Caucasian female patient was treated under complaint of pain in the "roof of the mouth" upon drinking of cold beverages. The extraoral physical exam revealed an asymptomatic swelling at the region of the canine fossa. The intraoral examination revealed that the swollen area was hardened on the buccal surface of tooth 13 and that there was a dome-shaped volumetric increase on the palatal side. A panoramic radiograph suggested a cystic lesion in the right maxilla with root resorption on the teeth 11 and 12. Inside the wound there were two circular radiopaque images. Fine-needle aspiration biopsy presented a yellow-citrine liquid characteristic of a cystic lesion. Initially, teeth 11 and 12 were endodontically treated, followed by surgical enucleation of the lesion, which made evident the intimate relation of the radiopaque masses with the lesion wall, obtaining two hard tissue fragments and one of soft tissue sample. The microscopic examination confirmed the diagnostic hypothesis of dentigerous cyst associated with the odontoma. The clinical and radiographic controls at 3, 6 and 12 months postoperatively suggest effective progressive mucous and bone healing of the surgical wound. Patient goes on with no complaints and with remission of signs and symptoms.

**Prevalence of actinic cheilitis in an oral health campaign in the city of Campinas, SP**

Zanetti, R.; Flório, F.M.; Moraes, P.C.; Lima, Y.B.A.; França, F.M.G.; Araújo, V.C.

The chronic or excessive exposure to solar radiation can result in a pre-malignant tissue alteration characterized by a diffuse lesion on the vermilion of the lower lip known as actinic cheilitis (AC). The aim of this study was to evaluate the prevalence of actinic cheilitis during an oral health campaign in the city of Campinas, SP, in the first semester of 2005. 420 individuals were examined (215 females and 205 males) with mean age of 47.1 years ( $\pm 15.4$ ). After filling out a specific questionnaire arguing about their socioeconomic and demographic data, type of access to dental services and self perception in oral health, the volunteers underwent clinical and epidemiological examinations by previously trained and calibrated examiners, the activity being completed with educative lectures regarding oral self examination and care with respect to solar exposures. The prevalence of AC was 18.1% (n=76), with predominance in the male population (69.7%) among individuals that classified themselves as Caucasian (73.7%) and individuals aged 45-60 years (40.8%). Among the patients with AC, 46.1% reported to be exposed to the sun during the work, 4 days/week (4.9 $\pm$ 3.9 hours/day), 36.8% were exposed during leisure (1.6 day/week; 1.3 $\pm$ 2.0 hours/day) and 28.6% during sport activities (1 day/week; 0.6 $\pm$ 1.4 hour/day). In conclusion, preventive strategies in adult patients must also be directed towards tissue alterations deriving from excessive exposure to the sun, in order to prevent the onset and/or progression of lesions with potential of malignant transformation.

**Scintillography as an auxiliary diagnostic method in dentistry**

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This study aimed to address the main indications of scintillography as an image diagnostic method in dentistry, its advantages and disadvantages. This examination receives this name due to the use radioactive composites (isotopes) connected to different pharmacologic substances, such as, polyphosphates, pyrophosphates or diphosphates, labeled by 99m-technecio. Using low amount of emitted radiation, this method evaluate the absorption, distribution and concentration of these isotopes, which participate in the metabolism of the specific tissues and organs. After the impact of radioactive iodine in the treatment of some thyroid gland diseases in the 50's, the scintillography became indispensable for the settlement of diagnoses for the thyroid gland. Because it is a high-sensitivity exam for detection of some early stage diseases at a lower cost, which allows a rapid and single-session evaluation of the whole skeleton, bone scintillography has attracted the attention of professionals of different health fields. The greater the blood concentration in the region, the greater the drug concentration. However, it must be considered that the scintillographic exam is nonspecific, and any changes on bone formation may result in abnormal radiotope placements. In dentistry, the scintillography exam may be used on cases of suspected metastasis, early diagnosis of oral and maxillofacial complex diseases, fractures, arthritis, osteomyelitis, Paget disease, fibrotic dysplasias, hemangiomas, pseudo-arthroses, osteoradionecrosis and traumatic bone cyst. The image is obtained because the administered radio-medicines concentrate in the bone and hydroxyapatite matrix, labeling the osteoclastic and osteoblastic activity of the desired region, thus demonstrating the new bone formation. The scintillography can also be useful in the diagnosis of condylar hyperplasia and the determination of salivary gland size, localization and function.

**Periapical inflammatory cyst associated with a primary tooth: case report.**

Mori, A.A.; Strosi, J.P.; Marques, L.M.; Farah, G.J.; Iwaki, L.C.V.; Filho, L.I.

Periapical inflammatory cyst is also known as apical periodontal cyst, radicular cyst or apical cyst. It is an odontogenic cyst whose development is directly related to inflammatory processes that can stimulate the proliferation of epithelial cells that will in turn trigger the formation of these pathologies. These epithelial sources usually originate from the epithelial rests of Malassez, but they may also be related to the crevicular epithelium, sinusal lining or epithelial lining of fistulous routes. Clinically, this cyst is usually asymptomatic. However, occasionally, swelling and mobility or displacement of the adjacent teeth may be observed. Radiographically, it presents as a well-defined radiolucent area with linear contour, circumscribed by a continuous radiopaque border, suggestive of bone reaction in the periapical region of the involved tooth. The treatment of choice is usually surgical enucleation. Nevertheless, in cases of large cysts (>2 cm), marsupialization or decompression can be necessary. The objective of this work is to report the case of an 11-year-old female child presented with facial asymmetry in the inferior third of the face. On intraoral examination, tooth 75 presented an extensive restoration, mobility and expanded bone cortical. The radiographic examination revealed endodontic treatment and a radiolucent area circumscribed by a radiopaque halo. Surgical enucleation was performed after fine-needle aspiration. The anatomopathological diagnosis indicated a periapical inflammatory cyst. The authors discuss and question the etiology of this lesion, the differential diagnosis with odontogenic keratocyst and the unicystic ameloblastoma, and especially the definitive diagnosis of periapical cyst associated with a primary tooth, which is a rare occurrence.

**White lesions of oral mucosa: case report and differential diagnosis**

Mandaliti, A.C.; Sampieri, M.B.; Rodrigues, M.T.V.; Damante, J.H.; Junior, O.F.

The white lesions of oral mucosa are a complex group of lesions characterized by presence of stains or white plates whose differential diagnosis depends on a detailed clinical examination (anamnesis and physical examination) and, in the majority of times, a biopsy is necessary. This case refers to a 45-year-old Caucasian patient who was referred to the Oral Diagnosis Clinic of FOB/USP for evaluation of white plaques on his oral mucosa. The plaques were present on both sides of the retromolar and jugal areas and were asymptomatic. The patient was smoker and used a mandibular removable partial denture. The final diagnosis was frictional keratosis and lichenous lesion and the patient has been periodically followed up.

**Gorlin-Goltz syndrome: diagnosis and 4-year follow up in a 6-year-old child**

Silva, M.A.M.; Munhoz, E.A.; Sant'Ana, E.; Consolaro, A.; Júnior, O.F.

A 6-year-old female patient was referred to our service due to a tumefaction in the left mandible that was hard to palpation. Radiographically, two radiolucent areas, divided by a bone septum and measuring approximately 3 cm each were observed, displacing

the germs of the permanent teeth. Incisional biopsies in the two lesions were performed and a diagnosis of odontogenic keratocyst was reached. Due to the appearance of the odontogenic keratocyst at an early age and to the existence of clinical features, such as presence of numerous nerves, frontal boss, hypertelorism and mandible prognathism, there was suspicion of Gorlin-Goltz Syndrome. This syndrome, also known as nevoid basal cell carcinoma, is characterized by multiple odontogenic keratocysts, nevoid basal cell carcinomas, hypertelorism, plantar/palmar and skeletal alterations, such as bifid rib, scoliosis, vertebral fusion, frontal boss and temporoparietal and mandibular prognathism. The patient was referred to the pediatrician and, after evaluation, vertebral anomalies were found in T3 and T4. After 4 years of observation, the patient developed 3 other odontogenic keratocysts that appeared in the posterior region of the right maxilla involving the germ of tooth 17, in the periapical region of the mandibular incisors and in the posterior region of the left maxilla involving the germs of teeth 27 and 28. This work presents the characteristics of Gorlin-Goltz syndrome as well as its evolution and treatments carried out throughout the 4 years of surveillance.

**Osteonecrosis of the jaws related to bisphosphonate therapy**

Romanowski, M.; Strujak, G.; Gomes, K.; Drechmer, M.; Carlini J.L.

Bisphosphonates are drugs broadly used in the treatment of patients with osteoporosis, Paget's disease and metastatic bone disease, especially from breast cancer, prostate cancer and multiple myeloma. After its chronic use, it has been observed osteonecrosis in the jaws, together with bacterial infection and bone exposure. Treatment according to literature includes expectation, use of antibiotics and debridement of the infected area. However, none of these treatments have shown suitable results. A consensus among experts states that prevention, preceded of proper interview and primary identification of clinical or radiographic alterations are the best procedures for a better prognosis. A 71-year-old man who was diagnosed with prostate cancer 2 years before and metastatic disease 2 months after total prostatectomy received Zometa/4mg (Zoledronic acid) for 16 months. He presented with pain, chewing difficulty and bad taste when swallowing. In addition, he presented with regions of exposed necrotic bone in the mandible measuring 2cm in the left side and 3 cm in the right side. Treatment included antibiotic therapy for acute infection management, chlorhexidine mouthwashes, curettage and removal of exposed bone areas that were in contact with oral cavity. A jelly haemostatic sponge was used for isolating the lesion from the oral cavity, with the intention of improving chewing and healing of the external mucosa. The patient referred improvement of the pain, chewing and taste after 3 months. He is still under treatment without cure prevision. Antibiotics are still given for prevention of acute infections and new bone exposure areas are being extracted.

**Pemphigoid: diagnosis and treatment**

Oliveira, R.B.S.; Araújo, M.R.; Albuquerque, D.F.; Consolaro, A.; Damante, J.H.

Pemphigoid is an autoimmune disease characterized by the development of vesicle-bullous lesions on the skin and mucosal surface. Patients develop antibodies directed against one or more components of the basal membrane, resulting in the formation of subepithelial blisters. The term pemphigoid is used because of its clinical similarity to pemphigus, although the microscopic characteristics and prognosis are different. Initially, it involves the mucosal surface, while skin involvement is rare. In some areas, the ulcerated lesions may result in scar formation. Oral mucosa is affected in many cases and the gingiva is the main site of occurrence, followed by the eyes. The development is slow and the lesions appear several months before the diagnosis is established by biopsy and immunofluorescence. This study intends to review concepts and present two cases that are currently being followed up, aiming the diagnosis of the lesion.

**Maxillary central giant cell lesion: Intralesional corticosteroids and bone plastic surgery treatment**

Nápoles, B.B.; Capelozza, A.L.A.; Sant'Ana, E.; Damante, J.H.; Araújo, M.R.; Zanda, M.J.

Central giant cell lesion is also called as giant cell tumor or giant cell granuloma, but it is not a tumoral lesion. In spite of its neoplasia-like locally aggressive pattern, it is considered as a nonneoplastic lesion. Its etiology is related to an exacerbated response to trauma. The histopathological features are multinucleated giant cells. Because of its locally aggressive behavior, the most commonly referred treatment is surgery, usually including curettage. However, this procedure causes great morbidity to the patient. Another treatment option is an intralesional injection of corticosteroids followed by a bone plastic surgery. A 12 year-old white female presented with an exophytic expansible lesion on the anterior maxilla that caused divergence of the long axis of the central incisors, had 2-month evolution and was secondary to trauma. Oral, radiographic and histological examination revealed a central giant cell lesion. A laboratory investigation of parathyroid hormone excluded the possibility of a

brown tumor of hyperparathyroidism. The treatment protocol was intralesional injection of triamcinolone acetonide (20 mg diluted in anesthetic at 1:1 ratio), using 1 mL of the solution for each 1 cm<sup>3</sup> of the lesion, and totalizing 6 weekly applications. Clinical-radiographic follow up was performed. After 3 months, the regression of the lesion was observed and a bone plastic surgery was performed to reestablish the esthetics of the affected area. This treatment protocol was deemed as satisfactory because it permitted lesion remission, causing less morbidity, avoiding the extraction of the involved and great resection of the maxilla.

#### Peripheral ameloblastoma with two recurrences

Brener, S.; Leal, R.M.; Assis, E.M.; Souza, F.E.M.; Oliveira, D.O.

A 79-year-old, white male denture wearer went to the Oral Diagnosis Clinic of FOPUC-MG with a well-circumscribed nodule on the right mandible measuring 1.5 x 2 cm of diameter, with smooth surface, normal color and painful symptomatology during mastication. The clinical diagnosis was fibrotic hyperplasia with indication of a conservative excisional biopsy. The microscopic diagnosis was peripheral ameloblastoma. The patient returned 15 days later presenting a local volume increase, suggestive of denture trauma. Nine months later, a lesion with the same characteristics as that observed at the first clinical visit was detected. Periapical, panoramic and occlusal radiographs were taken. The periapical image showed little erosion in the superficial bone. A new surgery was scheduled with safety margins of 5 mm and removal of periosteal tissue underneath the lesion. Denture grinding was done to reduce the local trauma. The follow up visits were performed 2 and 16 months after the surgery, with no evidence of clinical or radiographic lesion recurrence.

#### Dentist-patient relationship against infectious-contagious diseases

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Dentist-patient relationship against infectious-contagious diseases has been object of several investigations in different countries. Studies published in the late 1980's revealed that most dentists were concerned in treating HIV+ patients. Most recent studies have shown that the willingness in assisting these individuals has increased, indicating a larger understanding of the dental professional regarding infectious-contagious diseases. However, in the Brazilian literature, few studies are based on the report of patients with these pathologies, approaching their experience with respect to the dental care. The major goal of this work was to evaluate, by the application of 200 questionnaires to individuals with infectious-contagious diseases, the behavior of dentists during the dental treatment. As much as 35% of the interviewees did not seek dental care after being diagnosed with the disease. From those who reported their disease to the dentist, 3% were not treated. Among the treated ones, 16% were assisted at public institutions, 18.5% in public institutions specialized in treating patients with infectious-contagious diseases, 30.5% in private clinics; 17% revealed the diagnosis to the dentist. 12% of the respondents believed that there was some special care regarding the use of protective barriers by the dental staff and only 5% judged to have suffered discrimination. From the patients that did seek dental care, 11.5% answered that they would not inform the diagnosis in the event of undergoing a future dental treatment. Based on the collected data, it may be concluded that, according to the patients' perception, the dentist use different protective barriers during the treatment of individuals with known infectious-contagious diseases. Although the reported discrimination rate was low, the fear of prejudice persists, which was demonstrated by the great patient refusal to inform the dentists of their condition of having an infectious-contagious diseases.

#### Dermoid cyst of the buccal floor: a case report

Gomes, R.S.; Ferreira, G.M.; Farah, G.J.; Silva, M.Z.M.; Pires, L.C.; Vinci, F.C.; Daniel, A.N.

The dermoid cysts are considered uncommon developmental malformations. They are limited by epidermis-like epithelium containing dermal structures attached to the cystic wall. Their most common location in the midline of the buccal floor, but they may also be found laterally to the midline or in other areas, such as the submandibular region. They can be found below or above the geniohyoid muscle. The cysts located above of the geniohyoid muscle usually cause sublingual swelling, thus provoking a displacement of the tongue superiorly, which may impair feeding, phonation and breathing. The cysts located below the geniohyoid muscle may cause submental swelling giving a "double chin" appearance. Clinically, they can vary, in size, from some millimeters to centimeters, presenting as a painless, slow-growth mass with consistency similar to that of "rubber or dough". For diagnosis and settlement of the treatment plan, generally, clinical characteristics and imaging exams, such as computed tomography (TC) and magnetic resonance imaging (MRI) are associated, which are important methods to observe lesion extension. However, in most cases, the definitive diagnosis is obtained by histopathological examination. The objective of this work is report a case of a 41-year-old melanoderma female patient who was admitted to the

Metropolitan Hospital of Sarandi/PR presenting a painless swelling in the sublingual region. The patient was submitted to enucleation of the lesion under general anesthesia and the macroscopic piece was sent to histopathological examination with the hypotheses of dermoid cyst, branchial cyst or plunging ranula. The hypothesis of dermoid cyst was confirmed.

#### Panoramic radiography: acquisition, interpretation and errors

Imada, T.S.N.; Teixeira, R.C.; Albuquerque, D.F.; Araújo, M.R.; Capelozza, A.L.A.

Radiography is the most common complementary exam used at the dental office. Good quality radiography allows the dentist a better interpretation and greater support on the diagnosis of the jaw's pathologies, improving treatment efficacy. This study aims to discuss the most frequent errors in panoramic radiography, suggesting how to avoid them. There are four basic requirements to obtain good quality radiography: maximum detail, minimum distortion, appropriate density and contrast. Detail is the capacity of reproduction of the exposed object. Unsharpened images occur when there is a movement either from the machine, the film or the patient during the exposure. Detail is associated to the size of the focal area, film sensitivity and processing. Distortion is directly related to the enlargement or reduction of the exposed object and interferes with the interpretation of the image. Density refers to different film darkness. Over-processing, a short film-object distance and overexposure provide darkened images, complicating the interpretation. Radiographs should have a median density. Contrast is characterized by the difference between white and black, going through the shades of gray, considering the medium contrast where it is observed greater scale in shades of gray. Thus, dentists should obtain great detail radiography, low distortion, medium density and contrast in order to establish a correct diagnosis.

#### Periodontal lateral cyst in an adolescent patient: diagnosis and treatment

Santos, M.R.; Pereira, F.P.; Miyahara, G.I.; Crivelino, M.M.; Demathé, A.

Paradental cyst is a rare non-keratinized developmental odontogenic cyst that occurs adjacent or lateral to a vital tooth root. It is found mainly in adults (5th to 7th decades). In 75% to 80% of the cases, it occurs associated with the lateral incisor, canine and lower premolars. Without painful signs or clinical symptoms, they are usually diagnosed during routine radiographic exams. Radiographically, it appears as a circular or tear-shaped well-circumscribed radiolucent area. Paradental cyst is treated by surgical enucleation and it has not trend to recurrence. A 15-year-old boy was referred to the Oral Diagnosis Clinic of the University of Araçatuba/UNESP due to a periodontal abnormality detected in a radiographic exam for further orthodontic treatment. During intraoral exam, an abnormality was observed in the crown of tooth 45. Radiographically, it was observed a circumscribed radiolucent area between teeth 45 and 46 with 5 mm in the largest diameter. Pulp vitality test of teeth 45 and 46 was positive. Surgical enucleation of the lesion was accomplished. Histological features added to clinical characteristics allowed the definitive diagnosis of paradental cyst. Follow-up is being conducted and the beginning of bone repair was observed in the area 1 month after lesion enucleation. This work presented the diagnosis and treatment of paradental cyst in an adolescent patient.

#### Neurofibroma in a child: case report

Joaquim, R.C.; Demathé, A.; Pereira, F.P.

Neurofibroma is the most common neoplasm of peripheral nerves derived from an admixture of Schwann cells and perineural fibroblast proliferations. Solitary tumors are more common in young adults and they present as asymptomatic slow-growth soft tissue lesions, which vary greatly in size from tiny nodules to large masses. This work presents a case of a 4-year-old patient referred to the Department of Surgery of the Dental School of Araçatuba/UNESP with esthetic complaints due to facial volumetric increase that hindered breathing. Clinical and imaging investigation showed a volumetric increase in the buccal and nasal area. There were also nodules in the legs. The surgical intervention was accomplished under general anesthesia for resection of the intraoral lesion and incisional biopsy of legs nodules. The pieces were sent for histological examination and the diagnosis was plexiform neurofibroma. Postoperative follow-up was satisfactory, being observed a volumetric decrease. The patient stays under clinical and radiographic evaluation for case surveillance.

#### Nasolabial cyst: case report

Álvares, B.G.; Demathé, A.; Queiroz, T.P.; Sobhia, A.M.P.; Junior, I.R.G.; Miyahara, G.I.; Pereira, F.P.

Nasolabial cyst is a rare developmental cyst of uncertain pathogenesis. Clinically, it appears as a tumefaction of the upper lip, lateral to the midline, causing elevation of the wing of the nose. They are more commonly observed in adults, with prevalence

in the fourth and fifth life decades. Due to its soft-tissue origin, in most cases, there is not radiographic alteration. This paper documents the presentation and management of a 40-year-old man that came to the Department of Surgery of the Dental School of Araçatuba/UNESP complaining of a volumetric increase in the face, painless, with evolution of approximately 29 years, which hindered breathing. Intraoral examination revealed a swollen area in the deep maxillary fornix. There were no radiographic alterations. Intraoral puncture was accomplished and it was obtained a liquid of brown coloration. The lesion was excised via intraoral access under local anesthesia. The removed piece was sent to the laboratory of pathology of the Dental School of Araçatuba and a diagnosis of nasolabial cyst was obtained. There were no postoperative complications and it was observed a decrease of the facial edema with improvement of patient's breathing.

#### Palatal torus: case report

Garcia, P.; Capelozza, A.L.A.

The torus is considered as an anomaly of the jaws and is characterized by the appearance of a bone excrescence that has a typical outer cortical bone. It is a slow-growth lesion lined by a thin mucosa that occurs in the midline of the palate or in the lingual surface of the mandible in the premolar and molar regions. It has an incidence of up to 20% in adults and can occur in individuals of both sexes aged above 12 years. It requires treatment in the cases where the patient presents a history of discomfort, phonation or feeding difficulties, as well as in the cases of injuries on its surface due to trauma. The objective of this work is to present a case of torus in a 47-year-old patient, operator of a loading machine, who attended the Integrated Clinic of Prosthodontics at FOB/USP. The patient did not present any symptoms and was not aware of the bone growth in his palate. The anomaly was discovered during intraoral examination and an area of larger growth in the midline of the hard palate. It was hard, painless to palpation and lined by normal mucosa. The planned prosthetic treatment was performed and the patient was given information about his palatal torus and was instructed to sought treatment Clinic of Semiology of our school, in case of traumatic injury to the area of the torus.

#### Correlation between tumor-associated tissue eosinophilia and clinical staging of oral squamous cell carcinoma

Assao, A.; Tjioe, K.C.; Faustino, S.E.S.; Kowalski, L.P.; Landman, G.; Moraes, R.V.; Oliveira, D.T.

The presence of eosinophils in oral squamous cell carcinoma (SCC) has been observed in cases of extensive muscular infiltration. The aim of this study was to verify whether there is any relation between the presence of eosinophils and the process of stromal invasion in malignant tumors. A total of 43 patients treated for oral verrucous carcinoma or well-differentiated SCC, with or without lymph node involvement, at the Head and Neck Surgery and Otorhinolaryngology Department of the Cancer Hospital A.C. Camargo (Fundação Antonio Prudente, São Paulo, Brazil) from 1980 to 2000 were examined. The eosinophils were quantified in a x400 field using a camera connected to a computer with an image-analysis software. Tumor-associated tissue eosinophilia was classified according to intensity as absent/mild ( $\leq 175$  eosinophils/mm<sup>2</sup>) and intense ( $>175$  eosinophils /mm<sup>2</sup>) and it was statistically correlated with its microscopic features and clinical data by Fischer's exact test. Most SCC with III and IV TNM stages (72%) presented intense tissue eosinophilia while absent/mild tissue eosinophilia was frequently detected in SCC with I and II TNM stages ( $p=0.024$ ). These findings suggest that the presence of an intense tissue eosinophilia in SCC seems to be associated with the clinical tumor outcome characterized by extensive muscular infiltration and tissue destruction.

#### Knowledge of dental students of Unifal-MG of the consequences and complications of the oral piercing use

Almeida, A.S.; Cardoso, C.A.B.; Pereira, A.A.C.; Hanemann, J.A.C.; Oliveira, A.T.

The aim of the present study was to characterize the population of dental students at the Federal University of Alfenas (Unifal-MG) that use body piercing and evaluate the knowledge of these future health professionals of the complications caused by body piercing use, especially in the mouth. Three hundred and sixty six dental students were enrolled in this study. The students answered a survey with questions about their demographics (age, gender, race, etc), information about the use of body piercing, including local of use and for how long they used the piercing, and questions about the willing to use it. Knowledge of the pathologies and problems related to the use of body piercing was also investigated. The statistical correlations between the demographic information and the specific variables described above were obtained by the chi-square test with level of significance of 5%. The results demonstrated a sample constituted mainly of women (58.2%), Caucasians (83.5%) and 15-25-year-old age range (75.1%). Most interviewees reported to be heterosexual (97.8%) and catholic (99.7%). The prevalence of piercing users' among the undergraduate students

was 33.1%. The female students were found to practice more body piercing than the male students, this difference being statistically significant ( $p<0.001$ ). Generally, the students that use body piercing have a higher level of knowledge about the possible complications related to its use than those students that do not use it. The problems related to the use of body piercing can be of local, systemic or even social nature. Therefore, health professionals have to know the risks and consequences of body piercing and inform the population about them, as well as be aware of the possible harms deriving from body piercing.

#### Ameloblastoma associated with odontogenic keratocyst (keratocystic odontogenic tumor) in the maxilla

Centurion, B.S.; Araújo, M.R.; Albuquerque, D.F.; Lawal, M.; Consolaro, A.; Damante, J.H.

A 66-year-old white male complained about bad adaptation of his maxillary denture about one year. He referred episodes of nose suppurant drainage. Oral examination revealed a swelling on anterior edentulous maxilla. Panoramic, periapical and occlusal radiographs revealed extensive unilocular osteolytic lesion, demarcated by sclerotic margins, vestibular and palatal corticals were expanded and measured 4 cm of diameter. Computed tomography detailed the relations of the lesion with oral and nasal cavities demonstrating partial absence of the vestibular osseous cortical. Aspiration and incisional biopsy were performed, leaving a marsupialized cavity. Microscopic analysis showed a virtual cystic cavity surrounded by parakeratinized stratified squamous epithelium intensely basophilic basement membrane and palisaded cells, leading to the diagnosis as keratocystic odontogenic tumor. After 5 months, the surgical enucleation was performed and the microscopic findings were compatible with ameloblastoma in the area of odontogenic keratocystic tumor. No recurrence was observed after 1 year of follow-up.

#### Prevention and treatment of some oral complications of head and neck radiotherapy

Tjioe, K.C.; Sá, J.C.R.; Rubira, C.M.F.; Damante, J.H.

Radiotherapy plays an important role in the treatment of patients with head and neck cancer. The field and the radiation dose depend on the histological type, location and size of the tumor and on patient's health. In addition to neoplastic cells, healthy structures, like salivary glands, oral mucosa, teeth, muscles, bone and TMJ may be affected. The purpose of this study is to discuss oral complications caused by radiotherapy, focusing on prevention and treatment. Oral sequelae of radiation are classified in acute (mucositis, dysphagia, hyposalivation), intermediate (dysgeusia, dysphagia and hyposalivation) and late (radiation caries, hyposalivation, periodontal disease and osteoradionecrosis). Acute exacerbation of focal infection and severe mucositis may require adjustments or interruption of the radiation treatment schedule. Patient follow-up by a dentist on pre, peri and post-radiotherapy may prevent or reduce side effects and future complications. These dental procedures and preventive care are discussed in this study, focusing on oral health maintenance and improvement of patient's quality of life.

#### Ranula caused by sialolithiasis: a case report

Silva, R.C.; Delazare, P.H.M.; Lyrio, M.C.N.; Maia, R.M.L.C.; Barros, L.A.P.

Sialolithiasis is one of the most frequent pathologies of the salivary glands, involving both major and minor glands, but especially the ductal system of the submandibular gland. Mucocele and ranula (specifically located in the floor of the mouth), are mucous extravasation phenomena that affect salivary glands due to malformation or rupture of gland ducts, changing the normal salivary flow and leading to its deposit in the adjacent tissues. The two main causes for the appearance of ranula are the trauma and the obstruction of gland ducts for the sialolith formation. The purpose of this case report is to address the importance of an accurate diagnosis and immediate treatment when salivary stones are found.

#### Epidemiology, diagnosis and treatment of lichen planus in the "Buccal Lesions Project" developed at the State University of Maringá

Ido, V.Y.; Silva, M.C.; Pieralisi, N.; Silgueiro, R.S.; Pires, L.C.; Iwaki, L.C.V.

Lichen planus is a chronic mucocutaneous disease of unknown etiology. Starting from a literature review, the purpose of this work was to evaluate the clinical aspects of the lichen planus, as well as to compare these findings with literature reports. 26 clinical records from the archives of the "Epidemiology, Diagnosis and Treatment of Buccal Lesions" extension project, of the Department of Dentistry of the State University of Maringá (PR, Brazil) between 1995 and 2005 were consulted and reviewed. The data were controlled and analyzed. Ultimately, they led to the

conclusion that the lichen planus is a common disease in middle-aged women, in its reticular form and with preferential location in the mucosa. When there is burning sensation or pain, the use of medications (corticosteroids) relieves the symptoms. Additionally, the histopathologic exam of the lesion associated with its clinical observation is the more accurate method to establish the final diagnosis

#### The importance of Radiology for Forensic Dentistry in human identification

Martins, E.C.; Martins, E.C.; Caputo, I.G.C.; Inada, M.; Silva, R.F.; Daruge, E.

In current days, Radiology plays an important role in several fields, mainly in health areas. Since the discovery of x-rays, it has been used to visualize organs and/or structures where the man is not able reach. In Dentistry, the Radiology has also an important contribution in the diagnosis and human identification. Supported by the legislation (CFO - Law 5081/1966, Art. 6° and CFO - 63/2005, Art. 64), the dentist is entitled to use of x-ray equipments in dental offices for diagnostic purposes. Dental radiologists may also run imaging exams for Forensic Dentistry goals. In human identification, Radiology has an important applicability providing radiographs that will aid the forensic dentist to complete the cases with satisfactory information. Identification can be done by conventional, panoramic and digitalized radiographs. In human identification, radiographs from the skull, face or teeth can help estimating the age of children and adults. Post-mortem radiographs may reveal evidences of ante-mortem dental treatments that will help in human identification. The work of the forensic dentist becomes easier when a good documentation, especially complete dental radiological documentation, is available.

#### Eagle's syndrome: a report of one case treated with intraoral approach

Strujak, G.; Romanowski, M.; Gomes, K.U.; Biron, C.; Gebert, A.O.; Carlini, J.L.

In 1937, Eagle described some cases of pharyngeal and cervicofacial pain caused by elongation of the styloid process (more than 25mm) or calcification of its ligaments. He believed that 4% of the population had the process elongated, and 4% of these patients had symptoms. The symptoms of this condition are vague pharyngeal pain, cervicofacial pain, foreign body sensation in the pharynx, dysphasia, pain on head movements, irradiated pain on the temporomandibular joint and superior limb, earache, headache and vertigo. The variations of these symptoms are attributed to the variations of styloid process length and position, made by adjacent tissues fibrosis for infection, fracture or surgery in the styloid process region. Diagnosis may be difficult with symptom variation. The purpose of this work is present the case of a 39-year-old female patient, who came to our service complaining of pain on the tonsil fossa, on the head movements, on swallow and on opening the mouth, this symptoms irradiated to the ear region, and foreign body sensation on the pharynx. The processes are seen on the panoramic radiograph at both sides. Tenderness to palpation was elicited bilaterally in the tonsil fossa. Styloidectomy was made bilaterally with an intraoral approach. After surgery, the patient had breath complications, needed medication and mechanical ventilation. Seven days later, the patient shown limitation on mouth opening, pain on swallowing and was asked to go to an otolaryngologist because of nose refluxing. Within 30 days, there was an improvement on mouth opening and symptom resolution. The patient is still being followed up.

#### Conscious sedation with nitrous oxide

Carmo, C.H.; Tobouti, P.L.; Laranjeira, A.P.J.; Tanaka, C.E.; Martins, L.P.

Conscious sedation with nitrous oxide and oxygen basically aims to reduce the anxiety of the patient, thus increasing his/her pain threshold. It is a state of depression of the conscience in which the patient can keep the airways functioning independently and properly and can answer to physical stimuli and verbal command. In contrast with drug-induced anxiety control, which demands certain caution, requiring evaluation of the physical and psychological state of the patient, conscious sedation with nitrous oxide has rapid absorption and elimination, facilitating the control of its effect and allowing the patient to perform any activity immediately after the treatment. The nitrous oxide has little effect on the cardiovascular and respiratory systems, mainly because of its low power, hindering a deeper anesthesia. Therefore, the nitrous oxide has fast induction and recovery due to its blood/gas partition coefficient. Conscious sedation with N<sub>2</sub>O/O<sub>2</sub> is contraindicated for patients with blockage of superior airways, psychiatric problems, obstructive chronic pulmonary disease, asthma, etc. The administration of nitrous oxide is regulated by the dentist until reaching the ideal concentration for the patient. The technique of conscious sedation does not eliminate the use of local anesthetics, but rather the combination of the two methods is efficient. The use of conscious sedation with nitrous oxide and oxygen has increased among skilled professionals throughout the country due to its high safety margin and benefits for both the patients and the professionals.

## Endodontics

#### Analysis of the sealing capacity of apical plugs prepared with gray MTA Angelus®, CPM® and MBPc cements

Fidelis, N.S.; Orosco, F.A.; Bramante, C.M.; Garcia, R.B.; Bernardineli, N.; Bortolo, M.V.; Moraes, I.G.

The purpose of this study was to evaluate the sealing capacity of apical plugs prepared with gray MTA Angelus®, CPM® and MBPc cements. Ninety-eight human single-rooted teeth were first hand instrumented in a crown-down direction, then prepared with Gates-Glidden drills (from #5 to #1) and finally with #50 to #90 K-files. The #1 Gates-Glidden drills and all files passed 1 mm beyond the apical foramen. The external surface of the teeth was rendered waterproof and the teeth were assigned to 3 groups (n=30), according to the materials used in apical plug preparation, as follows: Group 1- gray MTA Angelus®; Group 2- CPM®, Group 3- MBPc. Eight teeth served as positive and negative controls, in which apical plugs were not prepared. The sealing capacity was analyzed by the assessment of 2% Rhodamine B dye leakage, after immersion of the teeth for 48 hours at 37°C. Kruskal-Wallis and Dunn's tests were used for statistical analysis (p<0.05). The results showed that, comparing the sealing capacity of the tested materials, MBPc presented statistically significant better results than the other cements.

#### Is it necessary the use of matrix in perforations treated with MTA?

Assumpção, T.S.; Moraes, I.G.; Bernardineli, N.; Garcia, R.B.; Broom, N.J.; Bramante, A.S.; Bramante, C.M.

Among the different types of treatments for tooth perforations, is their sealing with calcium hydroxide and, more recently, mineral trioxide aggregate (MTA). The aim of the present study was to show the importance of matrix use when the perforation is sealed with MTA and to describe the technique for this preparation. MTA insertion should be carefully done not to extrude to the periodontal space because it could impair the repair process. Matrix preparation is important to prevent this occurrence. This matrix can be fabricated from calcium hydroxide or calcium sulfate, which are inserted via perforation, for further insertion of MTA.

#### Treatment option for avulsed permanent teeth

Tolentino, L.S.; Fracasso, M.L.C.; Pavan, N.N.; Boselli, G.; Tolentino, E.S.; Queiroz, A.S.

Dental avulsion is a complex injury that affects the pulp tissue, periodontal ligament and alveolar bone. It is more frequent in children aged 7 to 11 years. The prognostic is directly related with the extra-alveolar time and there is a consensus regarding the fact that the shorter the period (<30 minutes), the greater the possibility of pulp revascularization and periodontal ligament fiber reinsertion. Likewise, the need of maintaining the avulsed tooth in an adequate storage medium is consensual. This work reports a case of replantation of an avulsed maxillary right central incisor, which was rendered complex because the clinical attendance was undertaken 48 hours after the injury and the avulsed tooth was kept dry by the patient, a 10-year-old male child. The dental care was provided at the emergency service of the Dental Clinic of UEM-Pr. The radiographic examination showed integrity of the alveolar wall. The tooth was secured by its crown, coronal access was prepared and the root canal was filled with a calcium hydroxide and propylene glycol paste because tooth had open apex. The patient received local anesthetics, the blood clot was removed and the alveolus was prepared for replantation. After that, a rigid retention was placed for 7 days and postoperative medication was prescribed. Eight sessions for changes of the calcium hydroxide-based dressing were undertaken during 12 months, followed by the definitive root canal filling. After 18 months, the tooth presents a normal appearance and the radiographic examination revealed a subtle alteration in the apical root third. It may be concluded that, although the initial conditions indicated an unfavorable prognostic and are contraindicated in the scientific literature, a considerable benefit for the patient was achieved, as the treatment allowed the reintegration of the patient to his social life, as well as the maintenance of the growth and face development.

#### Evaluation of physicochemical properties of retrograde filling sealers containing mineral trioxide aggregate and an experimental epoxy sealer

Vivan, R.R.; Vasconcelos, B.C.; Bramante, C.M.; Garcia, R.B.; Bernardineli, N.; Moraes, I.G.

This study evaluated some physicochemical properties of different retrograde filling sealers containing mineral trioxide aggregate (MTA) and an experimental epoxy sealer. The cements comprised ProRoot MTA, gray MTA-Angelus®, white MTA-Angelus®,