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### Abstracts

#### HLA Antigens in Erosive Oral Lichen Planus

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#### SUMMARY

**Objective:** The aim of this study was to determine the relevance between HLA antigens and erosive oral lichen planus (eOLP) in Turkish patients.

**Material Method:** 40 patients suffering from chronic eOLP without cutaneous lesions were included in study group; 2112 patients were selected as controls. DNA was extracted from peripheral blood by a standard method. All patients and controls were typed at the Department of Medical Biology, Istanbul Medical Faculty, which has accreditation to perform clinical tissue typing by European Federation of Immunogenetics (EFI).

**Results:** HLA-A\*68 was found to be the significant allele in patients with eOLP (OR: 33.38, CI: 10.64-104.70; p=0.001). The frequencies of HLA-A\*69 and HLA-A\*02 were also significantly increased in patients with eOLP respectively (OR: 54.13, CI: 3.33-881.13; p=0.04 and OR: 2.09, CI: 1.10-3.99; p=0.02). The frequency of HLA-B\*13 and HLAB\*35 were increased in eOLP patients compared to controls (OR: 2.76, CI: 1.20-6.33; p=0.02, and OR: 1.89, CI: 1.01-3.54; p=0.04). The frequency of HLA-DRB1\*01 allele was significantly increased in the eOLP patients group (OR: 3.47, CI: 1.79-6.72; p=0.001). The occurrence of the DRB1\*11 allele was significantly decreased (OR: 0.32, CI: 0.14-0.73; p=0.01) in patients with the eOLP.

**Conclusion** Specific increase of HLA-A\*68, followed by HLA-A\*69, HLA-A\*02, HLA-B\*13, HLA-B\*35, and HLA-DRB1\*01, as well as a marked decrease in DRB1\*11 in the eOLP patient group were underlined. Our findings confirm genetic heterogeneity in HLA antigen distribution in the eOLP; these findings may be considered while evaluating these patients and familial eOLP relations.

**Keywords:** Erosive Oral Lichen Planus; HLA antigens

# Evaluation of the Infection Control Approaches of Turkish General Dental Practitioners and Oral Specialists

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## SUMMARY

**Objective:** The purpose of the study was to comparatively evaluate the infection control knowledge and approaches of general dental practitioners and oral specialists.

**Materials and Methods:** General Dental Practitioners (GDPs) and oral specialists were surveyed randomly (300 GDPs and 300 oral specialists) by means of a verbal questionnaire including 11 questions about their awareness of infection control. The questionnaire with 11 items was asked and responses were recorded at dental congresses, continuing education courses and dental offices. The data were statistically analyzed with Chi-square and Mann Whitney U tests regarding the differences between GDPs and oral specialists, male and female dentists, and duration of the practice.

**Results:** The results indicated that at the time of the survey, oral specialists were more knowledgeable about routine infection control practices. There was a lack of interest in and/or knowledge of the infection control procedures among GDPs or oral specialists who have been in practice for more than 21 years.

**Conclusion:** There can be marked differences between what all respondents say they would do and what they actually do in clinical practice. However, according to the survey, improved compliance with recommended infection control procedures is required for all groups and is particularly necessary for GDPs who have been on duty more than 10 years.

**Keywords:** Infection Control; Cross-contamination

# **Microleakage and Interfacial Micro-morphology of Amalgam Restorations *In Vivo***

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## **SUMMARY**

This study evaluated the effectiveness of 3 cavity treatment systems placed *in vivo* in sealing restorations of amalgam. 2 young adult dogs were selected as experimental animals and 32 class V cavities were prepared through enamel on the buccal surfaces of the teeth. The prepared teeth were randomly divided into 4 groups of 8 teeth each. The 3 groups were treated with 1 of the following adhesive resin systems: Stae, Prompt L-Pop or Copalite (copal varnish) and restored with amalgam. In the fourth group teeth were restored with amalgam without any lining material. 2 months after treatment the animals were sacrificed, the teeth were extracted, immersed in a 0.5% solution of basic fuchsin, sectioned and scored for leakage. Scanning electron microscopy also examined features of the tooth/restoration interfaces.

The results indicated no statistically significant differences among the 4 groups for overall wall scores ( $P < 0.05$ ). For the leakage values on cervical and occlusal walls, statistical analysis again revealed no statistically significant differences between the occlusal and cervical micro-leakage values in all groups.

**Key words:** Microleakage; Amalgam Restorations; Micro-morphology

# **In Vitro Evaluation of 2 Apex Locators, Dentaport ZX and Ray-Pex 4, and Their Ability to Detect Root Perforations**

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## **SUMMARY**

The purpose of this study was to evaluate the accuracy of the electronic apex locators Dentaport ZX and Ray-Pex 4 in detecting root perforations. 35 extracted single-rooted teeth were prepared according to the step-down technique (M.A.F.=25). Artificial perforations in the middle third of the roots were made with a round bur (No 330, S.S. White). All teeth were embedded in a box containing alginate. A K-file No 15 was attached to the apex locators to be tested. For each specimen, 2 measurements were taken with each of the apex locators; the first measurement was done in dry root canals and the second one in canals containing sodium hypochlorite (NaOCl). The actual location of the tip of the file in relation to the external root surface was carried out with the help of a stereomicroscope. The results were approximated to the nearest value of 0,5mm.

In dry root canals, the accuracy of apex locators was 91.42% for Dentaport ZX, and 85.71% for Ray-Pex 4. In root canals containing sodium hypochlorite the accuracy of Dentaport ZX was 91.42% and of Ray-Pex 4 was 88.57%.

**Keywords:** Electronic Apex Locators; Root Perforations; Dentaport ZX; Ray-Pex 4

# Acidogenic Potential of a Diabetic Sweet Pastry (Baklava) and Cheddar Cheese: An *In Vivo* Study

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## SUMMARY

The aim of this study was to determine the effect of 2 types of sweet pastry and cheddar cheese on dental plaque pH. 16 volunteers, having more than  $10^5$  CFU mutans streptococci/ml saliva, 0 to 3 DMFT, and 0 to 1 plaque index scores participated in the study. The volunteers were instructed to avoid cleaning their teeth for 2 days before each step of experiment. By using a miniature pH electrode the initial plaque pH was measured on the proximal surface of left and right upper first pre-molars after lunch. During each testing step, the volunteers were asked to eat an equal piece of test product and plaque pH measurements were carried out at 2, 17, 32, 47, and 62 min after intake of products.

Both of the Baklavas gave more pronounced pH decrease than the cheese and significant differences were found at some time points when the 3 products were compared. Regardless of normal or dietary, Baklava exhibited lower plaque pH values compared to cheddar cheese. As a result of this study, since the last food of a meal determines the dental plaque pH profile, non-acidogenic foods should be preferred as last ones for optimal plaque pH.

**Keywords:** Baklava; Cheddar Cheese; Diabetic Food; Plaque

# **Bond Strength of Flowable Composite to Porcelain Surface Prepared with 2 Different Surface Pretreatments**

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## **SUMMARY**

The purpose of this study was to investigate the effect of flowable composite on shear bond strength of porcelain repair system with 2 different surface treatments, etching and sanding. 40 feldspathic porcelain (VITA VMK-90, Germany) samples were prepared in metal cylinder ingots (Wirrolloy Bego, Germany). 4 porcelain repair groups were as follows: Group 1: Airborned-particle abrasion, silane, bonding, hybrid composite. Group 2: Airborned-particle abrasion, silane, bonding, flowable composite, hybrid composite. Group 3: 35% phosphoric acid, silane, bonding, hybrid composite. Group 4: 35% phosphoric acid, silane, bonding, flowable composite, hybrid composite. ESPE repair kit was used for the porcelain repair procedures. Statistical analysis was performed with One-Way ANOVA and independent Student T-test.

The groups 1 and 2, with etching surface pre-treatment, exhibited similar shear bond strength values with the airborned-particle abraded groups (3 and 4). Groups 2 and 4 showed higher bond strength results than groups 1 and 3, but no statistical difference was observed. The failure mode of tested materials was cohesive in porcelain in all groups.

**Keywords:** Porcelain repair; Composite

# Differences between Periapical Lesions in Untreated and Teeth with Root Canal Fillings

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## SUMMARY

The aim of this study was to investigate features and differences between periapical lesions in untreated teeth and teeth with root canal fillings. During oral surgery procedures, 65 tissue samples were obtained. According to endodontic diagnosis for each tooth, separately, samples were divided into 2 study groups; group 1 comprised 25 samples of periapical lesions obtained from teeth with no previous endodontic therapy; additional 40 samples (group 2) were obtained from teeth in which the lesion persisted during a period of 2 years after endodontic procedures. History data were taken from each subject included in the study. Periapical tissue samples were processed for laboratory procedures: (1) histopathologic examination of lesions by light microscopy analysis; (2) qualitative and semi-quantitative analysis of bacteriological findings; (3) quantification of interleukin-1 $\beta$  in tissue homogenates by the ELISA method.

In the first group, symptoms were mainly positive. Exacerbation of the chronic periapical lesion, and diffused inflammation were common findings. Only in 1 single sample no evidence of infection was found; however, degree of infection ranged as moderate bacterial growth, with prevalence of facultative anaerobe strains. It is suggested that exudate drainage favours slow evolution of the infection, which was confirmed by lower interleukin-1 $\beta$  (IL-1 $\beta$ ) values, compared to similar diagnosis in the other study group. In the group with closed lesions, obligate anaerobe strains prevailed. They revealed higher IL-1 $\beta$  values compared to the same pathological types of inflammation in the untreated group.

**Keywords:** Endodontics; Periapical Lesion; Root Canal Filling; Interleukin-1 $\beta$

# **Endodontic Management of a Double Tooth: A Case Report with 4 Years Follow Up**

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## **SUMMARY**

Fusion and gemination are terms which describe a double tooth. This anomaly may result in functional and aesthetic problems and may require endodontic treatment. The aim of the report is to describe the endodontic treatment and follow up of a double tooth. The clinical and radiological examination revealed the presence of fusion of the central incisor and a supernumerary tooth element, and a periapical lesion was observed. The patient was prescribed an antibiotic and 2 different access cavity preparations were prepared. The canals were calcified and hardly found. After making length determination with radiograph, root canals were prepared using step back techniques, medicated with calcium hydroxide and sealed with Cavit. The same procedures were repeated in a second appointment because of the symptoms. The canals were filled with gutta-percha and Grossman sealer using lateral condensation technique at the third appointment. Follow-up radiographs exhibited that periradicular area was unchanged while the patient was asymptomatic. The patient remained asymptomatic at the 4-year follow-up appointment.

**Keywords:** Double Tooth; Endodontics; Fusion; Gemination



# **Myoepithelioma of the Soft Palate: Report of an Unusual Case and Review of the Literature**

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## **SUMMARY**

Salivary gland myoepithelioma (myoepithelial adenoma) is a rare tumour derived from myoepithelial cells. It represents less than 1% of all salivary gland tumours and presents several growth patterns. The parotid and palate are the sites of predilection.

In this paper we present an unusual case of myoepithelioma of the soft palate in a 51-year-old woman. The tumour was well circumscribed, with an initial differential diagnosis between pleomorphic adenoma and adenocystic carcinoma. The histopathologic findings showed 2 types of cells, while the immunohistochemical profile revealed a positive reactivity of specified cells to S-100 protein, to the smooth muscle actin (SMA) and to the cytokeratin. All these findings indicated a case of myoepithelioma that focally revealed areas of atypia and necrosis. This appearance is extremely rare and could lead to the diagnosis of malignant transformation of a myoepithelioma of the salivary glands or a myoepithelial carcinoma. Histology, immunohistochemistry, and differential diagnosis of this rare neoplasm is discussed. Also, a brief review of myoepitheliomas and their malignant counterparts is presented.

**Keywords:** Myoepithelioma, malignant; Myoepithelial Carcinoma;  
Salivary Gland Tumours

# **Adult Subcutaneous Haemangiopericytoma of the Buccal Region: Report of a Case**

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## **SUMMARY**

Haemangiopericytoma (HPC) is a rare neoplasm with uncommon maxillofacial involvement. In this article we describe a case of a subcutaneous HPC of the right buccal region in an adult patient with angiographic and immunohistochemical investigation.

**Key Words:** Haemangiopericytoma; Mesenchymal Tumours; Angiography

# **Bilateral Odontogenic Keratocyst in the Maxilla: Misdiagnosing as Radicular Cyst**

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## **SUMMARY**

Odontogenic keratocysts of the jaws arising from cell rests of the dental lamina and occurring over a wide age group are one of the developmental cysts and account for 10-12% of all jaw cysts. Bilateral odontogenic keratocysts are rare and multiple cyst formations occur typically in association with a Gorlin's syndrome. The reported occurrence of bilateral odontogenic keratocysts in the absence of a syndrome is rare. The case reported here, presents a 29-year-old male who had bilateral non-syndromic, odontogenic keratocysts in the maxilla, and reviews the literature for this unusual finding.

**Key Words:** Odontogenic Keratocyst; Cyst, radicular

# Lateral Cervical Cysts: Case Series

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## SUMMARY

Cysts presented in the lateral aspect of the neck are relatively uncommon anomalies. Many theories have been proposed to explain the aetiology of these cysts, grouped in 2 main categories: the congenital and the cervical lymph nodes cystic transformation theories. In this paper we present these theories, review the literature, and report our experience. Our findings, compatible with both theories lead us to the conclusion that there are in fact different mechanisms involved in the formation of these cysts.

**Keywords:** Lateral Cervical Cysts; Branchial Cysts

# **Multidisciplinary Approach in Adult Patient: A Case Report**

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## **SUMMARY**

The aim of the study was to present a treatment of an adult patient with Class II Division 2 malocclusion, associated with severe bi-maxillary crowding, persistence of maxillary left deciduous canine and impaction of left canine, and with unfavourable horizontal position. The condition was even worsened with serious periodontal disease and considerable recession. The treatment plan included periodontal therapy on soft and hard periodontal tissues, operative extraction of impacted canine and extraction of teeth 14, 34 and 45. Fixed appliances in both dental arches were used. The therapy lasted approximately 21 months. The patient is still in retention.

A good aesthetic and functional result is possible to be achieved even in such cases by proper diagnosis, treatment plan and cooperation between orthodontist, periodontist and oral surgeon.

**Keywords:** Orthodontic treatment; Adults; Fixed Appliances

# **Protective Prosthesis in Boxing**

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## **SUMMARY**

The sports dentistry is interested in the athlete's health, as well as in the medication of traumatic consequences in sport, and particularly for taking protective measures. Preventive aspects of trauma comprise application of the protective prostheses in boxing as well. The dental prostheses in boxing have a protective aim, for a rational systematisation of occlusion in order to achieve and distribute force during the sports practice. Their application should be considered in the aspect of whether the boxers are willing to use them, especially the juniors, and the method of their preparation and adaptation to them.

**Keywords:** Boxing; Protective Prosthesis