

Correlation between Chronic Pain and Masseteric Silent Period in TMD Patients

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SUMMARY

The aim of the study was to compare electromyographic characteristics of silent period duration in masseter muscles in patients with temporomandibular disorders (TMD) and asymptomatic adults. A 7-items questionnaire for grading chronic pain severity and related disability was used as diagnostic criteria for TMD (Dworkin and LeResche 1992). EMG activity was recorded from right and left masseter muscles using bipolar surfaces electrodes coupled to electromyograph.

The obtained results show and that severity of chronic pain and related disability are positively associated with prolongation of silent period during electromyographic recording of masseter muscles reflex activity in 41.2% frequency of TMD, with respect to the silent period in asymptomatic adults. These findings verify the statement that changes in masseteric silent period duration in patients with TMD and its measurement could be a useful diagnostic method for detection of this dysfunction.

Key words: Temporomandibular Disorders; Electromyography; Masseteric Silent Period

Ultrasonic Agitation of Irrigants: Its Effect on Root Canal Walls and Dentinal Tubules

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SUMMARY

40 premolars with 2 independent root canals were conventionally instrumented with K-files up to #60. Randomly divided, they formed 4 equal groups and NaOCl 1% was used as irrigating solution for the group A, E.D.T.A. 15% for the group B, citric acid 50% for the group C, and AgNO₃ 30% for the group D. The irrigating solution was stirred manually with a K-file size 25, in one root canal and by a smooth broach ultrasonically activated in the other root canal of each premolar. The roots were fractured, prepared for, and viewed by S.E.M.

The agitation of the irrigating solution by the ultrasonically activated smooth broach resulted in: (a) plugs in the dentinal tubules up to 100µm in the group A; (b) less smear layer in groups A and D; (c) the increased depth of penetration in the group D, and (d) the increased depth of enlargement of the dentinal orifices in groups B and C. The use of ultrasonics for agitation of the irrigating solutions after the end of the chemomechanical preparation, creates conditions that may lead to an improved endodontic therapy.

Key Words: Irrigation, ultrasonic; NaOCl; Smear Layer; E.D.T.A.

Frequency and Quality of Endodontically Treated Teeth in Adult Population

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SUMMARY

The aim of this study was to investigate the frequency and quality of endodontically treated teeth in adult patients. The panoramic radiographs of 175 adult patients visiting Faculty of Stomatology were examined for endodontic treatment and periapical status. Root canal fillings were categorized as “adequate” or “inadequate” with regard to root canal filling length and lateral seal. Results were analysed statistically using chi-squared test.

From total of 4854 teeth examined, root canal treatment was found in 508 teeth (10.5%). Teeth in the maxilla were more frequently root-filled (24.4 and 24.5%), as compared to those in the mandible (13.4 and 13.9%). The difference was statistically significant ($p > 0.01$). The highest incidence of root canal treatment was scored for the maxillary central incisors (20.1%). The adequate root canal fillings were detected in 178 (35%), and inadequate root canal fillings were detected in 330 teeth (65%). The periapical radiolucencies were found in 338 (69%) of all examined teeth, and in 66.5 of the endodontically treated teeth. The number of teeth with apical periodontitis without endodontic treatment was 94 (1.9%) of all examined teeth 149 (85.1%) patients had 1 or more teeth with apical periodontitis.

Key Words: Root Canal Treatment; Apical Periodontitis, Panoramic Radiographs

The Effect of Fluoride Released from Different Types of Glass Ionomer Cements: An *In Vivo* Study

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SUMMARY

This *in vivo* study has been planned with the aim to investigate the fluoride release from different glass ionomer cements and the effect of this on the secondary caries of caries active children. Within the scope of *in vivo* study; following the glass ionomer cement restorations, plaque and salivary analysis have been carried out for 8 months on 83 children aged 4-8 years.

Following glass ionomer cement restorations, an increase in plaque and salivary fluoride concentrations compared to amalgam restorations, a significant decrease in mutans streptococci levels have been observed. Also it was obvious that a decrease in mutans streptococci levels in plaque and saliva were not dependent on fluoride release from glass ionomer cements. However, restoring the cavities might have changed the oral microflora. There was no significant relation between salivary flow rate and plaque-salivary fluoride concentrations.

Considering the results obtained, it can be concluded that glass ionomer cements can be thought as an alternative on caries active children, compared to dental amalgam; however, it was understood that in spite of all our expectations, glass ionomer cement restorations were not miracle restorative materials against to amalgam.

Key Words: Glass Ionomer Cement; Streptococcus mutans; Caries activity test; Secondary Caries

Surface Hardness of Hybrid Ionomer, Compomer and Composite*

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SUMMARY

The purpose of this study was to evaluate surface hardness of different types of restorative materials, such as hybrid ionomer (Vitremer, 3M), compomer (Dyract, De Trey, Dentsply) and composite (Prodigy, Kerr) by means of Vickers hardness value. 30 specimens were prepared, 2 mm thick and 5 mm in diameter, and then divided into 3 groups of 10 each. Before testing, all specimens were stored in 37°C water for 24 hours. Hardness measurements were determined on the upper surface of each specimen on Vickers indenter.

Compomer showed highest hardness value compared to the hybrid ionomer and the composite.

Key Words: Compomer; Glass Ionomer Cement; Surface Hardness

* Presented at the 3rd Congress of the BaSS, Sofia, 1998.

Closure of Oroantral Communication with Split Thickness Palatal Flap

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SUMMARY

Several methods for closure of oroantral fistulas have been proposed over the years. In this article a laterally repositioned split thickness palatal flap technique is presented. The palatal flap is prepared and separated into an interior and exterior part. The interior is directed towards the communication whereas the exterior one is repositioned on its previous place. The advantages and limitations of the proposed technique are discussed.

Key Words: Oroantral Communication; Closure Techniques; Split thickness palatal flap; Complications

Supernumerary Teeth: Review of the Literature and Survey of 50 Cases

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Short Title: Supernumerary Teeth

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SUMMARY

The aim of this study was to investigate the general characteristics and prevalence of 66 supernumerary teeth in 50 children (35 male, 15 female) of 4236 patients who attended Ege University, School of Dentistry, Department of Pedodontics, with ages ranging from 3 to 12 years. Supernumerary teeth were assessed according to morphology, position, and eruption patterns, by use of clinical and radiological investigations in 3 years of follow-up study.

The prevalence was 1.2%. It was found that 57% (n=38) of supernumerary teeth were peg-shaped. 85% (n=55) were located in the mid-line region (mesiodens). 33% (n=22) were erupted and they were mostly peg-shaped. Consequently, in order to prevent the complications due to supernumerary teeth, early detection by a complete clinical examination and routine radiographic survey is necessary.

Key Words: Supernumerary teeth

The Influence of the Alveolar Process Atrophy on the Size of the Mandibular Angle

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SUMMARY

The study of the alveolar process atrophy and its influence on the size of the mandibular angle, in a humane mandible series from Albania, was investigated. Skeletal material encompassed 110 mandibles taken from the Museum of the Human Anatomy of the Faculty of Medicine. The measurement of the mandible angle was performed by goniometer. The results indicated a significant relation between alveolar atrophy and the size of the mandibular angle.

Key Words: Mandible, atrophy; Mandibular Angle

The Effect of L-Dopa on the Healing of Rat Femur Fractures*

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SUMMARY

This study was designed to evaluate the effect of L-dopa on healing of surgically created bony fractures in the adult male rat. 24 rats underwent surgery to create fracture lines in the right femur and fractures treated by interosseous wiring. They were then randomly divided in 2 equal groups, one receiving intraperitoneally 0.2 g/kg/day of L-dopa for 10 days, the other group acting as a control, receiving 2ml of saline. 4 animals from each group were killed at 2, 4 and 6 weeks after operation. Femurs were removed and gross, radiographic and histological observations were performed.

In the animals killed at 2 weeks after surgery, both control and experimental specimens showed partial healing. 6 weeks after surgery both control and experimental specimens showed complete healing. The data from this study indicate that L-dopa had a promoting effect on the bony healing in the rats.

Key Words: L-Dopa; Bone Fracture; Healing

* Presented at the 6th International Congress of Turkish Association of Oral and Maxillofacial Surgeons, Antalya, Turkey, 1998

Antioxidant Micronutrient Levels in the Serum of Patients with Oral Lichen Planus

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SUMMARY

Objective: The purpose of the study was to investigate the association of antioxidant micronutrients levels in the serum of patients with oral lichen planus (OLP) with the occurrence of the disease.

Design: A population control study.

Subjects and Methods: 60 patients with reticular form of oral lichen planus and 60 sex and age matched healthy controls were used in this study. Serum levels of micronutrients (retinol, alpha-tocopherol, and beta-carotene) were estimated by the high performance liquid chromatography (HPLC) method.

Results: Mean serum retinol (vitamin A) level ($43.7 \pm 0.9 \mu\text{mol/l}$) in OLP patients was significantly lower compared with that of controls ($62.0 \pm 1.7 \mu\text{mol/l}$) ($p < 0.001$). No significant differences were noted between OLP patients and controls in alpha tocopherol (vitamin E) (12.6 ± 0.2 and 12.5 ± 0.2 respectively) ($p > 0.05$). Beta-carotene in OLP patients was found in significantly higher levels compared with the control group (177.1 ± 8.7 and 149.9 ± 5.6 respectively) ($p < 0.0001$).

Conclusions: The above findings suggest that low serum vitamin A levels may be risk factors for the occurrence of OLP, while beta-carotene and vitamin E levels are not risk factors for the occurrence of the disease. However, any specific benefit of antioxidant micronutrients for the OLP cannot be claimed from this study since further investigations for their evaluation are needed.

Key Words: Vitamin A; Vitamin E; Beta-Carotene; Oral Lichen Planus

Intraoral Myxoid Lipoma: Report of a Case and Literature Review

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CASE REPORT (CR)

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SUMMARY

Myxoid lipoma is rarely found in the oral cavity. Review of the literature discovered only 6 cases. In the present study a case of myxoid lipoma in the buccal mucosa of a 73-year-old man was reported. Analysis of literature's data showed that myxoid lipoma of oral soft tissue occurs above the second decade of life. The age of patients range from 30 to 73 years, with a peak of incidence in the fifth decade (42.8%), and a mean age of 54 years. The tumour affects more men than women (2.5:1), and is located in the tongue and buccal mucosa almost equally. Myxoid lipoma should be differentiated histologically from the spindle cell lipoma, atypical lipoma, pleomorphic lipoma, lipoblastomatosis, soft tissue myxoma, and myxoid liposarcoma, tumours that contain fat cells and/or myxoid component.

Key Words: Lipoma; Myxoid lipoma; Intraoral lipomas; Differential Diagnosis

Pleomorphic Lipoma of the Gingiva

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CASE REPORT (CR)

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SUMMARY

A case of pleomorphic lipoma, presenting as a swelling on gingiva involving hard palate in a 58-year-old man is reported. Microscopic examination showed that this tumour was composed of mature adipose tissue and pleomorphic multinucleated giant cells. There is only 1 previously presented case of a pleomorphic lipoma located within the oral cavity.

Because of its microscopic feature, this tumour may be mistaken for a liposarcoma. The important characteristics serving to distinguish a pleomorphic lipoma from a liposarcoma are the absence of atypical lipoblastic proliferation, mitotic activity, and infiltrating growth patterns.

Key Words: Pleomorphic lipoma; Lipoma; Gingiva

Fibromatosis of the Maxilla: A Case Report

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CASE REPORT (CR)

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SUMMARY

Fibromatoses represent a heterogeneous group of the infiltrating fibrous proliferations that share similar microscopic characteristics, and possess an intermediate biologic potential between benign and malignant lesions. Fibromatosis occurring in the maxillofacial region is relatively rare and confuse the other fibrous lesions. In this article, we reported the case of a 13-year-old girl with fibromatosis of the maxilla.

Key Words: Fibro-osseous Lesions; Fibromatosis, maxilla

Nasolabial Cyst: Report of 2 Cases

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SUMMARY

The nasolabial or nasoalveolar cyst is a rare, non-odontogenic cyst in the maxillofacial area. The condition is well recognized but documented cases are rarely reported; thus, approximately 250 cases have been presented in the literature. The lesion thought to arise from the lower anterior part of the nasolacrimal duct, either from epithelial cell rests or from the proliferation of entrapped epithelium during embryogenesis. The cyst is usually unilateral, but may be bilateral, located beneath the ala of the nose, and may be mistaken for an apical abscess or a nasal furuncle. The diagnosis of a nasolabial cyst is made from a correlation of the clinical findings with the histological examination of the tissue.

This report presents the clinical and radiological features and treatment of 2 classic nasolabial cysts.

Key words: Cyst, nasolabial; Fissural Cyst

Endodontic Re-Treatment

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SUMMARY

To-day, patients expect to retain their natural dentition for a lifetime, and dentists are challenged to save the teeth that would have been extracted in another era without any question. Advances in endodontic re-treatment procedure allow practitioners to meet this challenge more predictably than ever before. The practitioner's capability to accurately assess the restorative, endodontic and periodontal outcomes will result in successful re-treatment plans. Clearly communicating the option of re-treatment will offer patients a rewarding alternative to extraction.

Key Words: Endodontic re-treatment; Root canal filling