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Case Report

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[A new mandibular anchoring technique](#)

Posterior anchorage in the mandible has always been difficult to obtain during our orthodontic treatments. We tried a large number of screw anchors and plate systems which gave us quite acceptable clinical results but had many drawbacks.

Prospective

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[Prevalence and awareness of oral habits among adults in Riyadh, Saudi Arabia](#)

Introduction: Oral habit is common in childhood and it is proven to cause multiple adverse effects on oral and general health, while oral habits in the adult population are under looked. The prevalence of oral habits varied among different societies. The extent of these effects varies depending on a wide range of variables including the actual habit, the duration, and the intensity of the oral habit.

Objectives: The primary objective is to determine the prevalence of oral habits in adults in Riyadh, Saudi Arabia, and the secondary objective is awareness of different types of oral habits and their adverse effects.

Methods: Descriptive cross-sectional study using questionnaire through google form which will address the prevalence of 5 Oral habits in the adult population, Riyadh, Saudi Arabia such as nail biting, chewing on pens/pencils/Miswak, using the teeth as a tool, chewing ice, and teeth clenching/grinding and bruxism. Also, it will address the awareness of these 5 oral habits and their adverse effects on oral health and prevention modalities.

Results: There were 220 participants. The majority were Saudi (52.7%), females (83.2%) with bachelor's degrees (63.6%) and around fifty percent with age below 30 years old. The most prevalent pattern was using teeth as a tool (46.8%), followed by chewing ice (43.6%) and nail-biting (39.1%). All five habits were mainly started in childhood; however, a respectable percentage of beginning is still reported during adulthood, particularly for clenching/grinding/bruxism and chewing ice, with a ratio of 36.4% and 25%, respectively. Most participants who reported clenching/grinding/bruxism and nail-biting were related to stress (75.3%, 48.8%, respectively). The majority reported that oral habits could harm teeth (82.3%) and could be preventable (78.6%).

Discussion: Most of the studies concentrate on oral habits in children while few studies had concentrated on oral habits in adults. Oral habit is not uncommon in adults, they have either to continue childhood bad habits or practice new oral habit. The adverse effect varies widely on oral and general health. Although the adult population is aware of these side effects few only seek medical advice.

Conclusion: In Saudi Arabia, oral habit is not uncommon in adults. So the recommendation for the prevention of oral habits is to embed it in all public services, at strategic and operational levels.

Case Report

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[Thoracic endometriosis: A case of one step multidisciplinary surgical treatment](#)

We describe a case of thoracic endometriosis in a patient with a repeated episode of spontaneous pneumothorax. Investigations revealed diaphragmatic fenestrations and right-sided pleural and lung endometriosis. Considering the ultrasound evidence of pelvic endometriosis, the patient was scheduled for multidisciplinary surgical management, to treat in one step thoracic and pelvic endometriosis.

Mini Review

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[Teledentistry and Digital Therapeutics \(DTx\) for dentistry](#)

Due to the global pandemic spread of COVID-19, the medical field has experienced many changes [1]. One of the main changes is the attention to Telemedicine (Digital Medicine), which is a part of Digital Health. The combination of 'Digital' and 'Dentistry' can be awkward because dental treatment is often conducted face-to-face with clinical treatment, but it is planned to proceed with the inevitable flow of the times [2,3]. In addition, Digital therapeutics (DTx), a part of digital dentistry, is a narrower concept and has an evidence-based effect on diseases. This article contains opinions on the concept and current status of Teledentistry and the application of DTx [4].

Literature Review

Published Date:- 2022-08-02

[The protective potential of Carbonic Anhydrase VI \(CA VI\) against tooth decay in children: A systematic review of the literature](#)

Carbonic anhydrase VI (CA VI) catalyzes the reversible hydration of carbon dioxide in saliva with possible pH regulation, taste perception, and tooth formation effects.

Objective: The aim of this work was to undertake a systematic review regarding the relationship between the expression/activity of CA VI in saliva and in dental biofilm and caries experience.

Study design: Five databases were searched until February 2020. The composition was based on the PRISMA statement and on the PICOS model. First author, year, subject characteristics, analysis performed, outcome, measures & variables were extracted. The used terms were "carbonic anhydrase VI", "saliva", "dental biofilm" and "dental caries".

Results: Five studies in the English language were selected for this systematic review and the main discussed topics were the expression/activity of CA VI in saliva and/or in the dental biofilm of children, and its relationship with dental caries.

Conclusion: Salivary carbonic anhydrase plays an important role in the caries dynamics process since there is an association between the expression/activity of CA VI in saliva and the experience of caries. Thus, this protein can predict the risk of dental caries in young patients.

Research Article

Published Date:- 2022-07-11

[Establishment of soft tissue norms for sagittal discrepancy for maxilla and mandible in central Gujarat population](#)

Objective: To establish the cephalometric norms of 'Zero meridian line' and 'Mew line' to assess the sagittal discrepancy in the maxilla and mandible of subjects in the Central Gujarat population

Materials and methods: The sample was screened from the records from the hospital. 100 individuals (50 males, 50 females) of the age group between 18-50 years, native of Central Gujarat, with acceptable pleasing profile, no skeletal asymmetry, normal Class I occlusion having ideal anterior bite, less than 2 mm crowding and no history of previous orthodontic treatment were selected for the study. Lateral cephalograph were taken in natural head position. The linear measurements between points of soft tissue pogonion to the Zero Meridian line (vertical line dropped from soft tissue nasion) and distance of Mew line (the biting edge of the upper front teeth to the tip of the nose) was taken on cephalograms.

Result: Mean value for soft tissue pogonion to the Zero meridian line on cephalograms was 0.2 mm for female and 0.8 mm for male and mean value for Mew line on cephalograms was 39 mm for female and 42 mm for male subjects.

Conclusion: Normal value for soft tissue pogonion to the Zero meridian line is 0.8 ± 1.8 mm for males and 0.2 ± 1.7 mm for females, and normal value for Mew line is 41.2 ± 3.2 mm for male and 39.4 ± 2.2 mm for female in Central Gujarat population. Values other than normal suggests skeletal sagittal discrepancy of maxilla and/or mandible, which is helpful in diagnosis and treatment planning.

Research Article

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[To estimate the levels of gingival crevicular fluid YKL-40 in patients with chronic periodontitis and rheumatoid arthritis with chronic periodontitis - a clinico-biochemical study](#)

Background and objectives: YKL-40, a C-reactive protein belongs to the positive acute-phase protein. It is also known as Human chitinase-3-like protein 1(HCI3L1) and is closely related to both acute and chronic inflammation. The present study aimed to detect and estimate the levels of YKL-40 in gingival crevicular fluid (GCF) in patients with healthy periodontium, chronic periodontitis, and rheumatoid arthritis with chronic periodontitis.

Materials and methods: Forty-five patients in the age range of 25-55years were included in the study. Patients were divided into three groups: Group I-15 Periodontal healthy patients, Group II-15 Chronic Periodontitis patients, and Group III-15 Rheumatoid arthritis with chronic periodontitis patients. Clinical parameters recorded were Plaque index, Gingival index, Gingival bleeding index, probing depth, and Relative attachment level. GCF samples were analyzed using ELISA. p - value < 0.05 was considered statistically significant.

Results: The highest mean YKL-40 concentration in GCF was observed in rheumatoid arthritis with Chronic periodontitis. The mean concentration of YKL-40 in GCF showed a three to four folds increase in its levels when compared to healthy controls ($p < 0.001$). Contrary, GCF YKL-40 levels between Group II and Group III were not significant.

Conclusion: With the increase in severity of periodontal destruction from healthy periodontium to chronic periodontitis, there was a substantial increase in the concentration of YKL-40 in GCF. Correlation of GCF YKL-40 with clinical parameters demonstrated increased severity of the diseases increased its levels

Research Article

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[Evaluation of the effect of titanium dioxide and gold nanoparticles surface treatment on the flexural strength of polymethyl methacrylate heat cure denture base resin](#)

Aim: The purpose of this study was to evaluate the effect of Titanium dioxide and Gold nanoparticles surface treatment on the flexural strength of Polymethyl methacrylate (PMMA) Heat cure denture base resins.

Materials and methods: A total of thirty PMMA Heat cure denture base resin test samples were fabricated of size 65 x 10 x 2.5 mm (rectangular shaped) according to ADA specification no.2. The samples were divided into three groups as Conventional PMMA heat cure denture base resin samples (GROUP I, $n = 10$ CONTROL), PMMA Heat cure denture base resin samples coated with Titanium dioxide nanoparticles (GROUP II, $n = 10$) and PMMA Heat cure denture base resin samples coated with Gold nanoparticles (GROUP III, $n = 10$). GROUP II and GROUP III PMMA Heat cure denture base resin test samples were coated by Magnetron sputtering. Flexural strength of GROUP I, GROUP II and Group III was evaluated by a three-point bend test using a Universal testing machine and the mean values were obtained.

Results: The Mean flexural strength of GROUP I, GROUP II and GROUP III samples were 114.79 MPa, 142.48 MPa and 154.70 MPa respectively. On comparative evaluation of the flexural strength among the three groups GROUP III PMMA Heat cure denture base resin samples exhibited the highest flexural strength followed by GROUP II and least by GROUP I. The statistical analysis by ANOVA had shown that there is significance in flexural strength among the groups tested (p - value = 0.000*).

Conclusion: Within the limitations of the study, PMMA heat cure denture base resin coated with Gold nanoparticles showed the highest flexural strength followed by PMMA Heat cure denture base resin coated with Titanium dioxide nanoparticles. Conventional PMMA Heat cure denture base resin without any surface treatment showed the least flexural strength.
