Oral Medicine
Evidence Update

July 2018 (Quarterly)
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**Lunchtime Drop-in Sessions**

**July (13.00-14.00)**
- 19th (Thu) Literature Searching
- 23rd (Mon) Critical Appraisal

**August (12.00-13.00)**
- 1st (Wed) Statistics
- 6th (Mon) Literature Searching
- 16th (Thu) Critical Appraisal
- 22nd (Wed) Statistics
- 30th (Thu) Literature Searching

**September (13.00-14.00)**
- 3rd (Mon) Critical Appraisal
- 13th (Thu) Statistics
- 17th (Mon) Literature searching
- 27th (Thu) Critical Appraisal
Departmental News

**Library Clinic**
Stop by and find out more about our services. We will be here to answer any questions you may have!

August 8th: **Foyer, Education Centre 12.00-14.00**

August 29th: **Foyer, St Michael’s Hospital 12.00-14.00**

September 5th: **Canteen (Level 9, BRI) 12.00-14.00**

September 11th: **Welcome Centre, BRI 10.00-16.00**

October 3rd: **Terrace (Level 4, Education Centre) 12.00-14.00**

November 7th: **Canteen (Level 9, BRI) 12.00-14.00**

December 5th: **Foyer, Education Centre 12.00-14.00**

December 11th: **Welcome Centre, BRI 10.00-16.00**

News, Research, Conferences, Training etc

Please contact us with any departmental news you wish to share with your colleagues in your Evidence Update bulletin.

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Overview of craniofacial pain
  o Burning mouth syndrome
  o Trigeminal neuralgia
  o Summary

Literature review current through: Jun 2018. | This topic last updated: Apr 27, 2018.

Trigeminal neuralgia
  o Diagnosis
  o Surgical therapy
  o Summary and recommendations

Literature review current through: Jun 2018. | This topic last updated: Jun 01, 2018.

Temporomandibular disorders in adults
  o Differential diagnosis > Facial pain
  o Clinical manifestations > Facial pain
  o Summary and recommendations


Clinical manifestations and diagnosis of Behçet syndrome
  o Oral ulcerations
  o Summary and recommendations

Recent Database Articles

Below is a selection of articles recently added to the healthcare databases, grouped into the following categories:

- Trigeminal neuralgia/orofacial pain/burning mouth syndrome
- Oral ulceration
- Potentially malignant lesions

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch: library@uhbristol.nhs.uk

Trigeminal neuralgia/orofacial pain/burning mouth syndrome

Differential diagnosis of jaw pain using informatics technology.

Author(s): Nam, Y.; Kim, H.-G.; Kho, H.-S.

Source: Journal of Oral Rehabilitation; Aug 2018; vol. 45 (no. 8); p. 581-588

Publication Type(s): Academic Journal

Abstract: Summary: This study aimed to deduce evidence-based clinical clues that differentiate temporomandibular disorders (TMD)-mimicking conditions from genuine TMD by text mining using natural language processing (NLP) and recursive partitioning. We compared the medical records of 29 patients diagnosed with TMD-mimicking conditions and 290 patients diagnosed with genuine TMD. Chief complaints and medical histories were preprocessed via NLP to compare the frequency of word usage. In addition, recursive partitioning was used to deduce the optimal size of mouth opening, which could differentiate TMD-mimicking from genuine TMD groups. The prevalence of TMD-mimicking conditions was more evenly distributed across all age groups and showed a nearly equal gender ratio, which was significantly different from genuine TMD. TMD-mimicking conditions were caused by inflammation, infection, hereditary disease and neoplasm. Patients with TMD-mimicking conditions frequently used "mouth opening limitation" (P < .001), but less commonly used words such as "noise" (P < .001) and "temporomandibular joint" (P < .001) than patients with genuine TMD. A diagnostic classification tree on the basis of recursive partitioning suggested that 12.0 mm of comfortable mouth opening and 26.5 mm of maximum mouth opening were deduced as the most optimal mouth-opening cutoff sizes. When the combined analyses were performed based on both the text mining and clinical examination data, the predictive performance of the model was 96.6% with 69.0% sensitivity and 99.3% specificity in predicting TMD-mimicking conditions. In
conclusion, this study showed that AI technology-based methods could be applied in the field of differential diagnosis of orofacial pain disorders.

**Burning Mouth Pain: A Case Report.**

**Author(s):** Oberoi-Jassal, Ritika; Portman, Diane; Smith, Joshua; Rajasekhara, Sahana; Desai, Vijay V.

**Source:** Journal of Oncology Practice; Jul 2018; vol. 14 (no. 7); p. 447-449

**Publication Type(s):** Academic Journal

Available at [Journal of oncology practice](https://journals.library.ubc.ca/index.php/JoP) - from EBSCO (MEDLINE Complete)

**Diagnostic criteria for temporomandibular disorders: Diagnostic accuracy for general dentistry procedure without mandatory commands regarding myalgia, arthralgia and headache attributed to temporomandibular disorder.**

**Author(s):** Österlund, C.; Berglund, H.; Åkerman, M.; Nilsson, E.; Petersson, H.; Lam, J.; Alstergren, P.

**Source:** Journal of Oral Rehabilitation; Jul 2018; vol. 45 (no. 7); p. 497-503

**Publication Type(s):** Academic Journal

**Abstract:** Summary: The clinical examination in diagnostic criteria for temporomandibular disorders (DC/TMD) is a strict procedure and comprises mandatory commands. However, learning and using these mandatory commands in general practice have proven to be difficult and their use of DC/TMD is minimal. To investigate whether reliability on a diagnostic level for DC/TMD diagnoses differs between examiners using the mandatory commands or not. Six examiners were divided into two groups: one using the mandatory commands in DC/TMD for the clinical examination and one who did not use the mandatory commands. A reliability assessment was performed twice, one occasion for each group of examiners. The assessment was performed according to the guidelines from the International Network for Orofacial Pain and Related Disorders Methodology. Each group of examiners thereby examined 16 subjects (11 TMD patients and 5 healthy individuals) each, and the diagnostic agreement (reliability) as compared to diagnoses derived by a reference standard examiner was calculated with Cohen’s kappa coefficient. The DC/TMD diagnoses myalgia, arthralgia and headache attributed to TMD were included in the reliability assessment. There was no significant difference regarding diagnostic agreement reliability between the examiners using or not using the mandatory DC/TMD commands. This study indicates that not using the mandatory commands in DC/TMD in general practice does not impair the diagnostic reliability regarding the diagnoses myalgia, arthralgia and headache attributed to TMD compared to including the commands.

**Burden of orofacial pain in a socially deprived and culturally diverse area of the United Kingdom.**

**Author(s):** Joury, Easter; Bernabe, Eduardo; Gallagher, Jennifer E.; Marcenes, Wagner

**Source:** Pain (03043959); Jul 2018; vol. 159 (no. 7); p. 1235-1243

**Publication Type(s):** Academic Journal

**Abstract:** Little is known about the burden and impact of orofacial pain in deprived areas, and whether it mediates the relationship between socioeconomic position and impacts on daily life. We analysed data from a representative sample of 2168 adults, aged 16 to 65 years, from the East London Oral Health Inequality study. Participants completed a validated questionnaire on demographics, socioeconomic position (area deprivation), orofacial pain (by anatomical site) in the past month, and impacts related to oral conditions on daily life. Negative binomial regression models with robust variance estimator were fitted. The prevalence of orofacial pain was high (30.2%). The most common subset of orofacial pain was intraoral pain (27.5%). The prevalence of pain related to
temporomandibular disorders was 6.8%. The most common subsets of intraoral pain were tooth (20.4%) and gingival (11.4%) pain. Orofacial pain, its subsets (intraoral and temporomandibular disorder-related pain), and intraoral pain subsets (tooth and gingival pain) consistently showed associations with all dimensions of impacts on daily life that were highly statistically significant: functional limitation, psychological discomfort, disabilities, and handicap. Socioeconomic inequalities were present in orofacial pain and some dimensions of impacts on daily life. Orofacial pain did not mediate the relationship between area deprivation and impacts on daily life. Our study demonstrated a substantial burden and impact of orofacial pain in a socially deprived and culturally diverse area of the United Kingdom. To address this burden, interventions that lie within the remit of health services are needed to improve access to dental care for adults with orofacial pain.

**Comparison between burning mouth syndrome patients with and without psychological problems**

**Author(s):** Kim M.-J.; Kim J.; Kho H.-S.

**Source:** International Journal of Oral and Maxillofacial Surgery; Jul 2018; vol. 47 (no. 7); p. 879-887

**Publication Type(s):** Article

**Abstract:** The purpose of this study was to compare clinical and socio-demographic characteristics between burning mouth syndrome (BMS) patients with and without psychological problems. Of 644 patients with symptoms of oral burning, 224 with primary BMS were selected on the basis of laboratory testing, medical history, and psychometric tests: 39 with psychological problems (age 62.5 +/- 11.5 years) and 185 without psychological problems (age 58.4 +/- 11.4 years). Comprehensive clinical and socio-demographic characteristics, including psychological profiles and salivary flow rates, were compared between the two groups. No significant difference in sex ratio, duration and diurnal pattern of symptoms, unstimulated whole saliva flow rate, or marital status was found between the groups. The patients with psychological problems had a significantly higher mean age, reduced stimulated whole saliva flow rate, and lower level of education than those without psychological problems. The patients with psychological problems also displayed higher rates and greater severity of various types of BMS-related symptom in most parts of the oral mucosa, higher rates of stress-related symptoms, and greater difficulties in daily activities. The severity of taste disturbance was the factor most significantly correlated with the level of psychometry. In conclusion, psychological problems in BMS patients are associated with an aggravation of BMS symptoms. Copyright © 2018 International Association of Oral and Maxillofacial Surgeons.

**The efficacy of fluoxetine in BMS-A cross-over study.**

**Author(s):** Zoric, Bojana; Jankovic, Ljiljana; Kuzmanovic Pficer, Jovana; Zidverc-Trajkovic, Jasna

**Source:** Gerodontology; Jun 2018; vol. 35 (no. 2); p. 123-128

**Publication Type(s):** Academic Journal

**Abstract:** Background: Burning mouth syndrome (BMS) is an intraoral burning or dysaesthetic sensation, recurring daily for more than two hours during the period longer than 3 months. The objective was to evaluate and analyse the efficacy of serotonin reuptake inhibitor fluoxetine on psychological factors, as well as on pain in participants with BMS. Methods: In a 6-month study, 100 participants with primary and secondary BMS were divided into two groups-fluoxetine and control (placebo) and examined by the dentist and the neurologist. Depression and anxiety were estimated by Hamilton Scale for Depression (HAM-D) and Anxiety (HAM-A) and Beck Depression Inventory (BDI) and the pain intensity by visual analogue scale (VAS). Results: Mean age of the participants was 60.33 in fluoxetine group and 67.4 in control group. Most of the participants were female-74% in the fluoxetine and 78% in the control group. Statistical difference between the fluoxetine and the control group was found in HAM-D results (P < .05). Values of other scales and VAS decreased
significantly after the therapy in both groups (P < .05). Conclusions: Our trial results indicate that fluoxetine therapy not only improves the psychological status of participants with BMS but also fluoxetine decreases the intensity of pain in these patients.

**Benefits of implementing pain-related disability and psychological assessment in dental practice for patients with temporomandibular pain and other oral health conditions.**

**Author(s):** Visscher, Corine M.; Ekberg, EwaCarin; Raphael, Karen G.; Baad-Hansen, Lene

**Source:** Journal of the American Dental Association (JADA); Jun 2018; vol. 149 (no. 6); p. 422-431

**Publication Type(s):** Academic Journal

**Abstract:** Background. Evidence in the field of dentistry has demonstrated the importance of pain-related disability and psychological assessment in the development of chronic symptoms. The Diagnostic Criteria for Temporomandibular Disorders offer a brief assessment for the diagnostic process in patients with orofacial pain (Axis II). The authors describe relevant outcomes that may guide general oral health care practitioners toward tailored treatment decisions and improved treatment outcomes and provide recommendations for the primary care setting. Methods. The authors conducted a review of the literature to provide an overview of knowledge about Axis II assessment relevant for the general oral health care practitioner. Results. The authors propose 3 domains of the Axis II assessment to be used in general oral health care: pain location (pain drawing), pain intensity and related disability (Graded Chronic Pain Scale [GCPS]), and psychological distress (Patient Health Questionnaire-4 [PHQ-4]). In the case of localized pain, low GCPS scores (0-II), and low PHQ-4 scores (0-5), patients preferably receive treatment in primary care. In the case of widespread pain, high GCPS scores (III-IV), and high PHQ-4 scores (6-12), the authors recommend referral to a multidisciplinary team, especially for patients with temporomandibular disorder (TMD) pain. Conclusions. The authors recommend psychological assessment at first intake of a new adult patient or for patients with persistent TMD pain. The authors recommend the pain-related disability screening tools for all TMD pain symptoms and for dental pain symptoms that persist beyond the normal healing period. Practical Implications. A brief psychological and pain-related disability assessment for patients in primary care may help the general oral health care practitioner make tailored treatment decisions.

**Administration of low-level laser on muscles of mastication following the induction of initial fatigue: protocol for a randomized, controlled, clinical trial.**

**Author(s):** de Brito Bitencourt, Greice; Gonçalves, Marcela Leticia Leal; Kobayashi, Fernanda Yukie

**Source:** Medicine; Jun 2018; vol. 97 (no. 22)

**Publication Type(s):** Academic Journal

**Available at** Medicine - from Europe PubMed Central - Open Access

**Abstract:** Background: Orofacial pain encompasses painful conditions, such as temporomandibular disorder (TMD). Multidisciplinary health teams seek to control such musculoskeletal disorders to improve the quality and functional capacity of the muscles of mastication. The aim of the proposed study is to evaluate the effect of low-level laser therapy as a form of treatment for the prevention of initial fatigue of the muscles of mastication (masseter and anterior temporal muscles) as well as the recovery of these muscles after induced exhaustion (caused by isometric contraction) in young adults. Methods: The participants will be 78 healthy male and female volunteers between 18 and 34 years of age. The volunteers will be randomly allocated to a laser group (n = 26), sham group (n = 26), and control group (n = 26). All participants will be submitted to a clinical evaluation to record mandibular movements, bite force, muscle sensitivity to palpation, and initial muscle fatigue. Initial
fatigue will be induced by isometric contraction of the jaws. Maximum voluntary contraction will be performed to record the time until initial exhaustion of the masseter muscle (determined by electromyography). The groups will then be submitted to the interventions: active laser therapy (wavelength: 780 nm; fluence: 134 J/cm; power: 50 mW; irradiance: 1.675 W/cm; exposure time: 80 seconds per point) on 3 points of the masseter and 1 point on the anterior temporal muscles on each side; sham laser (placebo effect); or no intervention (control). Maximum voluntary contraction will be performed again after the interventions to record the time until initial exhaustion of the masseter muscle (determined by electromyography). Differences in individual time until exhaustion between the pre- and postintervention evaluations will be measured to determine the effect of low-level laser therapy. Discussion: Although studies have been made with the use of low-level laser therapy in TMDs and on the effect of photobiomodulation on fatigue, this is the first study to test this therapy in the prevention of fatigue in this region. The clinical relevance lies in the fact that longer dental procedures could take place if the patients are less prone to fatigue.

Evaluating Burning Mouth Syndrome as a Comorbidity of Atypical Odontalgia: The Impact on Pain Experiences.

**Author(s):** Tu, Trang T. H.; Miura, Anna; Shinohara, Yukiko; Mikuzuki, Lou; Kawasaki, Kaoru

**Source:** Pain Practice; Jun 2018; vol. 18 (no. 5); p. 580-586

**Publication Type(s):** Academic Journal

**Abstract:** Objective: This study aimed (1) to investigate the differences in clinical characteristics of patients between 2 groups, those who have atypical odontalgia (AO) only and those who have AO with burning mouth syndrome (BMS), and (2) to assess the influence of psychiatric comorbidity factors on patients' experiences. Method: Medical records and psychiatric referral forms of patients visiting the Psychosomatic Dentistry Clinic of Tokyo Medical and Dental University between 2013 and 2016 were reviewed. The final sample included 2 groups of 355 patients: those who have AO only (n = 272) and those who have AO with BMS (AO-BMS; n = 83). Clinicodemographic variables (gender, age, comorbid psychiatric disorders, and history of headache or sleep disturbances) and pain variables (duration of illness, pain intensity, and severity of accompanying depression) were collected. Initial pain assessment was done using the Short-Form McGill Pain Questionnaire, and depressive state was determined using the Zung Self-Rating Depression Scale. Results: The average age, female ratio, and sleep disturbance prevalence in the AO-only group were significantly lower than those in AO-BMS group. AO-BMS patients rated overall pain score and present pain intensity significantly higher than did the AO-only patients (P = 0.033 and P = 0.034, respectively), emphasizing sharp (P = 0.049), hot-burning (P = 0.000), and splitting (P = 0.003) characteristics of pain. Patients having comorbid psychiatric disorders had a higher proportion of sleep disturbance in both groups and a higher proportion of depressive state in the AO-only group. Conclusions: AO-BMS patients have different epidemiological characteristics, sleep quality, and pain experiences compared to AO-only patients. The presence of psychiatric comorbidities in both groups may exacerbate sleep quality. We suggest that BMS as a comorbid oral disorder in AO patients contributes to a more intensively painful experience.

Occlusion, temporomandibular disorders, and orofacial pain: An evidence-based overview and update with recommendations.

**Author(s):** Racich, Michael J

**Source:** The Journal of prosthetic dentistry; Jun 2018

**Publication Type(s):** Journal Article Review

**Abstract:** This paper presents an overview of dental disciplines involved in the treatment of orofacial pain, temporomandibular disorders (TMD), and occlusion and provides an evidence-based
contemporary update of their interrelationships. English language peer-reviewed articles were identified using PubMed. Key words: bruxism, implants, occlusion, orofacial pain, orthodontics, prosthodontics, restorative dentistry, and TMD were used.

**Saliva on the oral mucosa and whole saliva in women diagnosed with burning mouth syndrome.**

**Author(s):** Acharya, Shikha; Hägglin, Catharina; Jontell, Mats; Wenneberg, Bengt; Ekström, Jörgen  
**Source:** Oral diseases; Jun 2018  
**Publication Type(s):** Journal Article  
**Abstract:**OBJECTIVE: The aim of the study was to examine mucosal saliva and unstimulated (UWS) and stimulated (SWS) whole saliva secretion rates and associated factors, in 56 female patients diagnosed with BMS and age-matched control women. MATERIAL AND METHODS: Mucosal saliva was assessed using the Periotron® method and blood flow using laser Doppler flowmetry. Diseases, drug usage, and xerostomia were registered using questionnaires. RESULT: The patients with BMS displayed less lingual and whole saliva, and more hyposalivation, xerostomia diseases/disorders and drug usage, compared to the controls. Only a low SWS and xerostomia differed after adjusting for drugs and systemic diseases. Regression analyses suggested an importance of saliva affecting drugs for saliva on the tongue and for SWS, and the total number of drugs used for UWS. Lingual saliva and UWS were also associated with systemic diseases in the patients. Xerostomia was significantly associated with drug use and whole saliva for all subjects but not in separate analyses of the groups. CONCLUSION: Less saliva in patients with BMS could be related to more systemic diseases and medication and not to the syndrome per se. Xerostomia in the patients was not related to any of these factors.

**Recent Advances in the Etiology and Treatment of Burning Mouth Syndrome.**

**Author(s):** Ritchie, A; Kramer, J M  
**Source:** Journal of dental research; Jun 2018; p. 22034518782462  
**Publication Type(s):** Journal Article  
**Abstract:** Burning mouth syndrome (BMS) is a debilitating condition that has a striking female predilection. Although the oral mucosa is normal in appearance, patients with BMS experience oral burning that most commonly localizes to the lips and tongue. BMS is a diagnosis of exclusion, and all underlying pathoses associated with allodynia must be ruled out prior to rendering the diagnosis. The etiopathogenesis of BMS remains poorly understood, and thus patient management is challenging. Data indicate that oral and systemic factors both contribute to the development and persistence of the condition. Of particular interest, emerging work identifies structural and functional deficits within the nervous system that may lead to a more mechanistic understanding of BMS pathology. In addition, several novel findings suggest that circadian rhythm dysfunction may be a previously unappreciated yet clinically significant driver of disease. Circadian rhythm controls pain perception, mood, and sleep and plays a key role in the regulation of the hypothalamic-pituitary-adrenal axis. Since these are altered in patients with BMS, this may be reflective of underlying circadian dysfunction. While evidence-based treatment strategies for BMS are lacking, current treatment approaches consist of local and systemic medications, such as clonazepam, alpha lipoic acid, capsaicin, low-level laser therapy, gabapentin, and amitriptylin. In addition, the use of cognitive behavioral therapy is reported. This review provides an overview of the recent literature related to the etiology and treatment of BMS and identifies current challenges facing researchers and clinicians alike.

**Treatment modalities for burning mouth syndrome: a systematic review.**
OBJECTIVESIn the burning mouth syndrome (BMS), patients experience a burning sensation in the oral cavity with no associated injury or clinical manifestation. The etiology of this condition is still poorly understood, and therefore, treatment is challenging. The aim of this study is to perform a systematic review of treatment possibilities described in the literature for BMS.

MATERIALS AND METHODSPubMed, Embase, and SciELO databases were searched for randomized clinical trials published between 1996 and 2016.

RESULTSFollowing application of inclusion and exclusion criteria, 29 papers were analyzed and divided into five subcategories according to the type of treatment described: antidepressants, alpha-lipoic acid, phytotherapeutic agents, analgesic and anti-inflammatory agents, and non-pharmacological therapies. In each category, the results found were compared with regard to the methodology employed, sample size, assessment method, presence or absence of adverse effects, and treatment outcomes.

CONCLUSIONSThe analysis revealed that the use of antidepressants and alpha-lipoic acid has been showing promising results; however, more studies are necessary before we can have a first-line treatment strategy for patients with BMS.

CLINICAL RELEVANCETo review systematically the literature about Burning Mouth Syndrome treatment may aid the clinicians to choose the treatment modality to improve patients symptoms based on the best evidence.

Oral health and orofacial pain in people with dementia admitted to acute hospital wards: observational cohort study.

Author(s): van de Rijt, Liza J. M.; Weijenberg, Roxane A. F.; Feast, Alexandra R.; Vickerstaff, Victoria

Source: BMC Geriatrics; May 2018; vol. 18 (no. 1)

Available at BMC Geriatrics - from EBSCO (MEDLINE Complete)

Abstract:Background: Orofacial pain in people with dementia is difficult to detect, and often under-treated. Our aim was to investigate the prevalence of orofacial pain in people with dementia in acute hospitals in the UK. Secondary aims were to examine oral health status and explore associations between orofacial pain and oral health factors.

Methods: This cross-sectional observational study was carried out in two UK hospitals. Using the Orofacial Pain Scale in Non-Verbal Individuals (OPS-NVI) to identify orofacial pain, 101 participants with dementia, admitted to acute medical wards, were observed for at least 3 min during rest and chewing. Verbal participants were then asked about presence of orofacial pain, using self-report pain scales. Finally, a brief oral assessment was performed.

Results: Orofacial pain, assessed with the OPS-NVI, was present in 11.9% (95% C.I. 5.9, 18.8) of participants at rest and 21.9% (95% C.I. 14.6, 31.3) whilst chewing. Participants who were no longer able to self-report pain were significantly more likely to experience orofacial pain. Oral health in both dentate and edentate participants was poor. Brush frequency, indication of chewing quality, consistency of the food, presence of extra-oral abnormalities, person who performed mouth care, and oral hygiene in dentate participants were significant predictors for the presence of orofacial pain.

Conclusion: Improving oral care in acute hospital patients with dementia, particularly those who cannot self-report pain, may significantly reduce pain and suffering in this population.

Clinical characterization of women with burning mouth syndrome in a case-control study.

Author(s): Acharya, Shikha; Carlén, Anette; Wenneberg, Bengt; Jontell, Mats; Hägglund, Catharina

Source: Acta Odontologica Scandinavica; May 2018; vol. 76 (no. 4); p. 279-286
Publication Type(s): Academic Journal
PubMedID: 29284330

Abstract:Objective: Burning mouth syndrome (BMS) is a chronic orofacial pain disorder that is defined by a burning sensation in the oral mucosa. The aim of this study was to investigate the underlying factors, clinical characteristics and self-reported oral and general health factors associated with BMS. Material and Methods: Fifty-six women with BMS (mean age: 67.7) and their age-matched controls were included in the study. A general questionnaire, an OHQoL index and BMS-specific questionnaires were used. Each subject underwent an oral examination. Results: The mean severity of the BMS symptoms (VAS, 0-100) was 66.2 (SD 19.7). Overall, 45% of the patients reported taste disturbances. More of the patients than the controls rated their general health, oral health and life situation as 'less satisfactory'. The patients also reported more frequently on-going medications, diseases/disorders, xerostomia, allergy and skin diseases. Except for more bruxofacets among the patients, there were no significant differences regarding signs of parafunction. In a multiple logistic regression analysis, xerostomia and skin diseases showed the strongest prediction for BMS and no significant effect was found for medication, allergy or bruxofacets. Conclusions: Skin diseases and xerostomia but not parafunction were strongly associated with BMS. Our findings provide the basis for additional studies to elucidate the causal factors of BMS.

Caring for patients suffering from trigeminal neuralgia.
Author(s): Stephens, Olivia
Source: Dental Health; May 2018; vol. 57 (no. 3); p. 37-41

Publication Type(s): Periodical
Abstract:Background: Trigeminal neuralgia (TN) is a debilitating and sometimes excruciating neural condition affecting the trigeminal nerve. Pain caused by TN is widely recognised but there is limited research into the consequential quality of life (QoL) and depressive disorders that may be a manifestation of this condition. Aims: To assess the TN patient cohort attending King's College Hospital Foundation Trust (KCHFT) orofacial pain service, their pain and the impact on QoL and how as dental care practitioners we can adapt to their needs. Methods: Patients suffering from trigeminal neuralgia completed a Facial Pain Questionnaire. Anxiety and depression scores were calculated for each participant and categorised into high and low scores. Relationships between groups and data, such as average weekly pain, personal resources and pain interference, were analysed using the Mann Whitney-U statistical test. Results: Results revealed that pain, sleep interference and different personal resources were significantly linked with anxiety. Conclusion: It is important to assess both the patient's pain levels, chronicity and interference levels as this can significantly increase anxiety. This could improve a clinician's empathy and support encouraging holistic care of these patients as the severity of the condition can significantly affect QoL and mental state.

Clinical characterization and treatment outcome of patients with burning mouth syndrome.
Author(s): Hakeem, Abdulaziz; Fitzpatrick, Sarah G.; Bhattacharyya, Indraneel; Islam, Mohammed N
Source: General Dentistry; May 2018; vol. 66 (no. 3); p. 41-47

Publication Type(s): Academic Journal
Abstract:Burning mouth syndrome (BMS) is a complex condition that affects the oral cavity, and data regarding effective treatment are limited. The purpose of this study was to explore the demographic and clinical information along with treatment outcomes for patients with BMS treated in a large referral center. Clinical records of the Oral Medicine Clinic at the University of Florida College of Dentistry were retrospectively searched for patients diagnosed between 2009 and 2014. Clinical data and treatment effectiveness were recorded. The records of 64 patients were included in
this study. Women represented the majority of patients (81.2%), and the average age of all patients was 65 years. The most common systemic diseases were hypertension (59.4%), psychological disorders (51.6%), and gastroesophageal reflux disease (50.0%). The majority of patients were taking 5 or more medications (70.3%). Treatment frequency and efficacy were as follows: α-lipoic acid, 47.5% frequency (57 prescribed treatments of 120 total treatments) and lasting improvement reported with 45.6% of prescribed treatments; clonazepam, 17.5% frequency (21/120) and improvement reported with 33.0% of prescribed treatments; oral disintegrating clonazepam, 15.8% frequency (19/120) and improvement reported with 52.6% of prescribed treatments; and topical vitamin E, 5.0% frequency (6/120) and improvement reported with 33.0% of prescribed treatments. Chi-square analysis indicated that a significantly better response to treatment was reported by women (P = 0.010) and patients who reported involvement limited to the tongue rather than multifocal oral involvement (P = 0.040); however, the significant relationships did not persist when the variables were evaluated together using logistic regression analysis. No other clinical or demographic features showed significant differences in response to treatment. Although treatment effectiveness in this study was variable and limited for some regimens due to infrequent usage, many of the patients reported alleviation of symptoms.

Insufficient evidence available to reliably conclude how orthodontic treatment with lingual fixed appliances compares with orthodontic treatment with labial fixed appliances.

Author(s): Brignardello-Petersen, Romina
Source: Journal of the American Dental Association (JADA); May 2018; vol. 149 (no. 5)
Publication Type(s): Academic Journal
Abstract: The author focuses on survey of patients asking reasons for seeking oral health care and dental related emergency department (ED) use and mentions reports of patients having orofacial pain. Topics discussed include Mission of Mercy (MOM) dental clinics conducted by several dentists across the country, oral health care at the Florida Dental Association Foundation’s Florida Mission of Mercy (FLA-MOM) event and funding of dental programs for those in need.

Salivary scintigraphy for Sjögren’s syndrome in patients with xerostomia: A retrospective study.

Author(s): Nadal, M.; Levy, M.; Bakhsh, A.; Joly, A.; Maruani, A.; Vaillant, L.; Erra, B.; Samimi, M.
Source: Oral Diseases; May 2018; vol. 24 (no. 4); p. 552-560
Publication Type(s): Academic Journal
Abstract: Objectives: The value of salivary gland scintigraphy in the diagnosis of Sjögren's syndrome remains controversial. The primary aim of this study was to estimate the diagnostic accuracy of salivary gland scintigraphy in the diagnosis of Sjögren's syndrome among 237 patients with xerostomia. Methods: We retrospectively compared eight scintigraphy parameters between 106 Sjögren patients and 131 non-Sjögren patients. Results: Seven of the eight parameters were significantly decreased in patients with Sjögren; however, their diagnostic accuracy was low, with areas under the curves (AUCs) ranging from 0.58 (95% CI 0.50-0.65) to 0.63 (95% CI: 0.55-0.70). The prestimulatory oral activity index allowed discrimination between primary and secondary Sjögren’s syndrome (AUC 0.73, 95% CI: 0.62-0.84), and the secretion velocity for parotid glands allowed discrimination between patients with Sjögren and burning mouth syndrome (AUC 0.71, 95% CI 0.59-0.82). Conclusion: The accuracy of scintigraphy parameters for the diagnosis of Sjögren's syndrome among patients with xerostomia was low; however, some functional indices appeared to assist discrimination between primary and secondary SS patients and between subgroups of patients with different causes of xerostomia.
The association between burning mouth syndrome and sleep disturbance: A case–control multicentre study.

**Author(s):** Adamo, D.; Sardella, A.; Varoni, E.; Lajolo, C.; Biasotto, M.; Ottaviani, G.; Vescovi, P

**Source:** Oral Diseases; May 2018; vol. 24 (no. 4); p. 638-649

**Publication Type(s):** Academic Journal

**Abstract:** Objectives: To investigate the quality of sleep and the psychological profiles of a large cohort of Italian patients with burning mouth syndrome (BMS) and to clarify the relationships between these variables and pain. Methods: In this case–control study, 200 patients with BMS vs an equal number of age- and sex-matched healthy controls, recruited in 10 universities, were enrolled. The Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), Hamilton Rating Scale for Depression (HAM-D), Hamilton Rating Scale for Anxiety (HAM-A), Numeric Pain Intensity Scale (NRS) and Total Pain Rating Index (T-PRI) were administered. Descriptive statistics, including the Mann–Whitney U test and hierarchical multiple linear regression analysis, were used. Results: Poor sleep quality (PSQI ≥ 5) was present in 78.8% (160) patients with BMS. BMS patients had statistically higher scores in all items of the PSQI and ESS than the healthy controls (p < .001). A depressed mood and anxiety correlated positively with sleep disturbance. The Pearson correlations were 0.570 for the PSQI vs HAM-D (p < .001) and 0.549 for the PSQI vs HAM-A (p < .001). Pain intensity (NRS) poorly correlated to sleep quality; the Pearson correlation was 0.162 for the PSQI vs NRS (p = .021). Conclusions: The BMS patients showed a poor sleep quality, anxiety and depression, as compared with the controls, highlighting the relationships between oral burning, sleep and mood.

"Is it Sjogren's syndrome or burning mouth syndrome? Distinct pathoses with similar oral symptoms"-a commentary.

**Author(s):** Mortazavi, Hamed; Anbari, Fahimeh

**Source:** Oral Surgery, Oral Medicine, Oral Pathology & Oral Radiology; May 2018; v125 (5); p505-506

**Publication Type(s):** Academic Journal

"Is it Sjögren's syndrome or burning mouth syndrome? Distinct pathoses with similar oral symptoms"-Response.

**Author(s):** Kramer, Jill M.

**Source:** Oral Surgery, Oral Medicine, Oral Pathology & Oral Radiology; May 2018; v125 (5); p506-506

**Publication Type(s):** Academic Journal

Changes in the vibration sensitivity and pressure pain thresholds in patients with burning mouth syndrome

**Author(s):** de Souza Moura B.; Janini M.E.R.; dos Reis Ferreira N.; DosSantos M.F.

**Source:** PLoS ONE; May 2018; vol. 13 (no. 5)

**Publication Type(s):** Article

Available at PloS one - from EBSCO (MEDLINE Complete)

**Abstract:** Objective To investigate the presence of changes in vibration detection and pressure pain threshold in patients with burning-mouth syndrome (BMS). Design of the study Case-control study. The sample was composed of 30 volunteers, 15 with BMS and 15 in the control group. The pressure-pain threshold (PPT) and vibration-detection threshold (VDT) were examined. The clinical evaluation was complemented with the McGill Pain Questionnaire (MPQ), Douleur Neuropathique 4 (DN4) and Beck Depression and Anxiety Inventories (BDI and BAI, respectively). Results BMS subjects showed a
statistically significant higher PPT in the tongue (p = 0.002), right (p = 0.001) and left (p = 0.004) face, and a significant reduction of the VDT in the tongue (p = 0.013) and right face (p = 0.030). Significant differences were also found when comparing the PPT and the VDT of distinct anatomical areas. However, a significant interaction (group x location) was only for the PPT. BMS subjects also showed significantly higher levels of depression (p = 0.01), as measured by the BDI, compared to controls; and a significant inverse correlation between the VDT in the left face and anxiety levels was detected. Conclusions The study of somatosensory changes in BMS and its correlations with the clinical features as well as the levels of anxiety and depression expands current understanding of the neuropathic origin and the possible contribution of psychogenic factors related to this disease.

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**Long-term changes in oral health-related quality of life over a period of 5 years in patients treated with narrow diameter implants: A prospective clinical study.**

**Author(s):** Reissmann, Daniel R; Enkling, Norbert; Moazzin, Rim; Haueter, Marius; Worni, Andreas

**Source:** Journal of dentistry; May 2018

**Publication Type(s):** Journal Article

**Abstract:**

**OBJECTIVES** The aim of this study was to assess long-term changes in oral health-related quality of life (OHRQoL) over a period of 5 years in patients treated with narrow diameter implants (NDI) in the mandible for support of an overdenture.

**METHODS** In this prospective clinical study, a consecutive sample of 20 edentulous patients who had worn sufficient complete dentures for at least 12 weeks was provided with four immediately loaded one-piece titanium NDIs in the mandible. The German 49-item version of the Oral Health Impact Profile (OHIP) was applied to assess OHRQoL at baseline and all follow-ups (4 and 8 weeks, 3, 6, and 12 months, and 3 and 5 years after treatment was finished).

**RESULTS** Before treatment, OHRQoL was substantially impaired indicated by high OHIP summary score (39.9 points). Four weeks after treatment, a substantial treatment-induced drop of OHRQoL impairment was observed (21.8 OHIP points), and at all follow-ups, OHIP scores were lower than at baseline (15.9-26.5 OHIP points; ANOVA: p<.001). Based on mixed-effect linear regression analyses, the treatment-induced effect on OHRQoL improvement over the entire study period was statistically significant for the OHIP summary scores as well as for all four OHIP domains: Oral Function, Orofacial Pain, Orofacial Appearance, and Psychosocial Impact (all: p<.001).

**CONCLUSION** This study suggests that four immediately loaded NDIs for the support of conventional complete dentures in edentulous patients with substantially impaired OHRQoL may lead to a long-lasting treatment-induced improvement in OHRQoL.

**CLINICAL SIGNIFICANCE** The provision of four NDI in the edentulous mandible is a promising treatment option for patients with substantial OHRQoL impairment and a positive attitude towards implant treatment. Furthermore, patients can be informed that improvements in OHRQoL are expected to last for at least 5 years.

**Mechanical sensitivity and psychological factors in patients with burning mouth syndrome.**

**Author(s):** Honda, Mika; Iida, Takashi; Kamiyama, Hirona; Masuda, Manabu; Kawara, Misao; Svensson, Peter; Komiyama, Osamu

**Source:** Clinical oral investigations; May 2018

**Publication Type(s):** Journal Article

**Abstract:**

**OBJECTIVES** The aim of this study was to compare mechanical sensitivity on the tongue using quantitative sensory testing (QST) and psychological factors using the General Health Questionnaire (GHQ) between burning mouth syndrome (BMS) patients and healthy participants.

**MATERIALS AND METHODS** Participants comprised 20 female BMS patients...
(68.1 ± 7.4 years) and 20 healthy females (65.4 ± 4.6 years). Psychological factors were evaluated with GHQ. Tactile detection thresholds (TDT) and filament-prick pain detection thresholds (FPT) were used to evaluate mechanical sensitivity on the tongue in all participants. TDT and FPT were measured on the tongue within both the painful area and the non-painful area in BMS patients, and on the tongue on both sides in healthy participants. As controls, TDT and FPT were measured with Semmes-Weinstein monofilaments on the skin of the mentum and palm in all participants.

RESULTS: GHQ scores were significantly higher in BMS patients than in healthy participants (P = 0.024). No significant differences in TDT or FPT on the tongue, mentum, or palm were seen between BMS patients and healthy participants (P > 0.05). BMS patients showed no significant differences in TDT or FPT between the painful and non-painful areas on the tongue (P > 0.05). There were no significant correlations among TDT/FPT and GHQ score in BMS patients (P > 0.05).

CONCLUSION: These findings could indicate a more important role for psychological factors than mechanical sensitivity in BMS pathophysiology.

CLINICAL RELEVANCE: Pain on the tongue in elderly female patients with BMS may be more related to psychological factors.

A successful approach to control burning mouth syndrome using matricaria recutita and cognitive therapy.

Author(s): Milani, Alessandra-Maria-Ceolin; Macedo, Carmen-Lúcia-Rodrigues;
Source: Journal of clinical and experimental dentistry; May 2018; vol. 10 (no. 5); p. e499
Publication Type(s): Journal Article

Abstract: The burning mouth syndrome (BMS) has no specific clinical and laboratory signs. Its etiology is yet to be elucidated, but it is considered to be affected by multifactorial, psychological, and local and systemic factors. This condition is considered of great morbidity, and the main complaint of patients may be associated with xerostomia, thirst, and altered taste. The present study aims to report two cases of BMS and to evaluate the outcome of cognitive therapy (CT) plus phytotherapy in the control of BMS. The patients were female, Caucasian, and aged between 58 and 69 years. The most BMS-affected anatomical parts were the lips and the tongue. In the clinical approach, oral and systemic evaluation, and disease management with CT plus chamomile tea were done. The patients were reassured, and their response to therapy one year after was found to be excellent despite few exacerbations in periods of great emotional stress. Thus, we conclude that psychological treatment is vital in the management of BMS, as CT, along with Matricaria recutita phytotherapy, displayed excellent results in the control of BMS. Key words: Anxiety, chamomile tea, xerostomia, psychosomatic.

Oral ulceration

Evaluation of effectiveness of a preparation on the basis of phytoecdysteroids for treatment of traumatic injuries of oral mucosa in orthodontic patients

Author(s): Yur’evna K.M.; Sergeevna N.A.; Veniaminovna P.V.; Vladimir S.A.; Evgen’evich D.A.
Source: International Journal of Green Pharmacy; 2018; vol. 12 (no. 1)
Publication Date: 2018
Publication Type(s): Article

Abstract: Aim: To comparison of the effectiveness of the use of the phytoointment on the basis of phytoecdysteroids with effectiveness of the use of conventional synthetic drugs in the treatment of traumatic lesions of oral mucosa in orthodontic patients. Materials and Methods: A total of 110
orthodontic patients were examined and treated who have acute and chronic traumatic lesions of mucous tunic of lips and cheeks. Following preparations were used for treatment: Phytoointment containing phytoecdysteroids, gel cholisal, and dental paste solcoseryl. During each examination (before start of treatment and after 2, 4, 6, 8, and 10 days), a visual evaluation of the state of traumatic injury and photoplanimetric measurement of dimensions of pathological focus were performed. Results and Discussion: Effectiveness of treating the traumas of oral mucosa, which were caused by orthodontic treatment with the help of non-removable appliances, was compared when these traumas were treated by various preparations: Solcoseryl, cholisal, and a new preparation on the basis of phytoecdysteroids. We revealed that among the medicinal preparations, which we compare, the highest effectiveness in the treatment of erosive-ulcerous traumatic lesions of oral mucosa is provided by a new phytoointment. Taking into account low cost and absence of side effects, we can recommend this technique of the treatment for use as a method of choice.

Targeted therapy with Nk-1r antagonist for oral mucositis and other tissue reaction in hamster model and comparison of oral mucositis treatment with low level laser

Author(s): Ps S.; Mohan M.; Eid A.A.
Source: Supportive Care in Cancer; 2018; vol. 26 (no. 2)
Publication Type(s): Conference Abstract
Abstract: Introduction Studies done on NK-1R antagonist role, in tissue reactions namely, pruritis, mucositis are very few, those directed shows affirmative; and a causal association could convey foundation of targeted therapy for tissue reactions. Objectives 1) To investigate whether the NK-1R antagonist has a therapeutic effect on mucositis, pruritis, and hair loss in the mouse model. 2) Comparison of effectiveness of NK-1R antagonist with low level laser in oral mucositis
Methods The hamsters were divided into four groups, control group with no treatment; Group A, receiving the 5-FU peritoneal injection only; Group B, receiving the 5-FU peritoneal injection and NK-1R antagonist; Group C, receiving the 5-FU peritoneal injection and low level laser. Hamsters were intraperitoneally administered 5-FU at 80mg/kg on days, 0, 6, and 9. NK-1R antagonist, 1 mg/kg, were administered intraperitoneally on Day 1, 2 and 3rd. And low intensity red laser was administered on Day 2, 5 and 7 to the scratched cheek pouches Results Group A, showed, complete ulceration of the cheek pouch at the end of the 13th day, and very minimal small patches of alopecia (2-5cm2), and biting, licking of hind paw. Group B, showed, Presence of erythema, and minimal evidence of erosion in the cheek pouch, with no scratching or no biting or licking the hind paw, and very good coat condition. Group C, showed, minimal presence of erythema in the cheek pouch, and very minimal small patches of alopecia and biting, licking or hind paw. Conclusions The targeted therapy with NK-1R antagonist in tissue reactions could reduce the symptoms.

Delayed diagnosis of oral, esophageal, and genital lesions

Author(s): Navid-Azarbaijani P.; Tang A.
Source: Journal of General Internal Medicine; 2018; vol. 33 (no. 2); p. 502
Publication Type(s): Conference Abstract
Abstract: Learning Objective #1: Recognize the clinical manifestations of pemphigus vulgaris (PV). Learning Objective #2: List the differential diagnosis in a patient with concurrent oral, esophageal, and genital lesions. CASE: A 30-year-old male presented to the ED with progressive odynophagia and dysphagia and a nine kilogram weight loss. Ten months prior, he initially noted burning chest pain that was attributed to GERD, but four months of omeprazole had no effect. He then developed painful, erosive oral ulcers, a penile ulcer, an urticarial rash, and a scalp lesion. The scalp lesion was
presumed to be related to a cutaneous fungal infection and was treated with antifungals. The oral ulcers were attributed to an allergy to omeprazole, so it was switched to famotidine. Despite these treatments, he experienced acutely worsened odynophagia and presented to the ED with an inability to tolerate PO. He denied abdominal pain, bloody bowel movements, joint pain, or visual changes. The patient denied tobacco or alcohol use. He had not been sexually active for a year and had tested negative for HIV, HSV, and syphilis two months prior. He had no other past medical history. Physical examination was notable for numerous erosions on the gingiva, a healing penile erosion, dermatographism, and a boggy plaque with overlying crust and scale on the frontal scalp. EGD demonstrated severe ulcerative esophagitis and a web in the proximal esophagus. Biopsies of the esophagus, scalp, and oral lesions revealed intraepithelial acantholysis with basal tombstoning. Direct immunofluorescence staining revealed intercellular deposition of IgG within the epidermis, pathognomonic for PV. After a course of prednisone and two infusions of rituximab, the patient experienced marked improvement of his odynophagia and gingival lesions. IMPACT: This case focused our approach on the evaluation of patients presenting with concurrent oral, esophageal, and skin lesions. It helped us recognize the various clinical manifestations of PV. Accurate recognition of this constellation of symptoms can prevent a delay in diagnosis. DISCUSSION: PV is an intraepidermal autoimmune disease that causes blistering and erosions of the skin and mucous membrane. While skin erosions are a classic presentation, mucosal disease in the oral cavity and esophagus are often the only initial sites of involvement and can lead to a delay in diagnosis. This patient's symptoms went undiagnosed and untreated for several months. The case provides an opportunity to explore the differential diagnosis practitioners should consider when presented with concurrent symptomatic oral, esophageal, and genital lesions. Blistering skin disorders, such as PV and cicatricial pemphigoid, should be considered. Alternative diagnoses to consider include Crohn's disease with mucocutaneous involvement, Behcet's disease, and HSV, although providers should search for other systemic manifestations of the diseases such as gastrointestinal or ocular symptoms.

Infantile hemangioma with minimal or arrested growth as the skin manifestation of PHACE syndrome.

Author(s): Valdivielso-Ramos, Marta; Torrelo, Antonio; Martin-Santiago, Ana; Campos, Minia

Source: Pediatric dermatology; Jul 2018

Publication Type(s): Journal Article

Abstract: BACKGROUND Infantile hemangiomas with minimal or arrested growth are vascular tumors with a proliferative component involving < 25% of their total surface area. They are commonly described as localized lesions and are mainly located on the lower body. Little has been described about segmental forms on the face and their associations with PHACE syndrome. METHODS We carried out a multicenter, retrospective, case-series study involving 5 hospitals in Spain. Information was collected on cases of PHACE syndrome featuring infantile hemangiomas with minimal or arrested growth. RESULTS The frontotemporal and maxillary areas were the most frequently involved sites in our series. The upper eyelid and upper lip were the 2 locations most frequently associated with proliferation and ulceration. Four patients experienced spontaneous resolution, and the rest had a very good cosmetic outcome with oral treatment. Cerebral and cervical arterial anomalies were the most frequent extracutaneous findings associated with PHACE, followed by cerebral and ocular anomalies. Some unique associated disorders were fructose intolerance and retinoblastoma. CONCLUSION We present the largest case series of segmental facial infantile hemangiomas with minimal or arrested growth in PHACE syndrome and emphasize the importance of recognizing these lesions in early infancy, because they can indicate PHACE syndrome. The data presented suggest that infantile hemangiomas with minimal or arrested growth-associated PHACE syndrome does not seem to differ significantly from PHACE syndrome with classic infantile
hemangiomas, and thus the same recommendations for diagnosis, management, and therapy should be followed. Future studies with more patients could contribute to enlighten this specific subset.

**Protective effects of systemic dermatan sulfate treatment in a preclinical model of radiation-induced oral mucositis.**

**Author(s):** Gruber, Sylvia; Frings, Katharina; Kuess, Peter; Dörr, Wolfgang  
**Source:** Strahlentherapie und Onkologie : Organ der Deutschen Rontgengesellschaft ... [et al]; Jul 2018; vol. 194 (no. 7); p. 675-685  
**Publication Type(s):** Journal Article  
Available at Strahlentherapie und Onkologie - from PubMed Central  

**Abstract:** PURPOSE Oral mucositis is a frequent, dose-limiting side effect of radio(chemo)therapy of head-and-neck malignancies. The epithelial radiation response is based on multiple tissue changes, which could offer targets for a biologically tailored treatment. The potential of dermatan sulfate (DS) to modulate radiation-induced oral mucositis was tested in an established preclinical mucositis model. METHODS Irradiation was either applied alone or in combination with daily DS treatment (4 mg/kg, subcutaneously) over varying time intervals. Irradiation comprised single dose irradiation with graded doses to the lower tongue surface or daily fractionated irradiation of the whole tongue. Fractionation protocols (5 x 3 Gy/week) over one (days 0-4) or two weeks (days 0-4, 7-11) were terminated by an additional local single dose irradiation to a defined treatment field on the lower tongue surface to induce the mucosal radiation response. The additional single dose irradiation (top-up) on day 7 (after one week of fractionation) or day 14 (after 2 weeks of fractionation) comprised graded doses in order to generate full dose-effect curves. Ulceration of the epithelium of the lower tongue, corresponding to confluent mucositis, was analysed as clinically relevant endpoint. Additionally, the time course parameters, latent time and ulcer duration were analysed. RESULTS DS treatment significantly reduced the incidence of ulcerations. DS application over longer time intervals resulted in a more pronounced reduction of ulcer frequency, increased latent times and reduced ulcer duration. CONCLUSION DS has a significant mucositis-ameliorating activity with pronounced effects on mucositis frequency as well as on time course parameters.

**Development and validation of rt-qPCR for vesicular stomatitis virus detection (Alagoas vesiculovirus).**

**Author(s):** de Oliveira, Anapolino Macedo; Fonseca, Antônio Augusto;  
**Source:** Journal of virological methods; Jul 2018; vol. 257 ; p. 7-11  
**Publication Type(s):** Journal Article  

**Abstract:** Vesicular stomatitis is an infectious disease that occurs mainly in countries of the Western Hemisphere and affects cattle, swine and horses. The clinical symptoms in cattle and swine are similar to foot-and-mouth disease and include vesicular ulceration of the tongue and mouth. The disease requires a rapid and accurate differential diagnosis, aiming for immediate implementation of control measures. The objective of the present study was to develop and perform validation tests of multiplex RT-qPCR(s) for the detection of RNA from Alagoas vesiculovirus, considering the parameters of sensitivity and analytical specificity, analytical performance (repeatability and reproducibility criteria) and the uncertainty of the measurement. The threshold cycle values obtained in triplicate from each sample were evaluated by considering the variations between days, analysts and equipment in an analysis of variance aimed at determining the variances of repeatability and reproducibility. The results showed that RT-qPCRs had excellent sensitivity and specificity in the detection of RNA of the Alagoas vesiculovirus. The validation parameters showed low coefficients of variation and were equivalent to those found in other validation studies, indicating that the tests presented excellent repeatability and reproducibility.
Clinical and dermoscopic spectrum of discoid lupus erythematosus: novel observations from lips and oral mucosa.

Author(s): Salah, Eman

Source: International journal of dermatology; Jul 2018; vol. 57 (no. 7); p. 830-836

Publication Type(s): Journal Article

Abstract: BACKGROUND Under dermoscopy, discoid lupus erythematosus (DLE) exhibits specific findings. Commonly DLE lesions affect sun-exposed sites, especially the face. However, most of the dermoscopic reports come from scalp DLE. To our knowledge, the dermoscopic pattern for mucosal and labial DLE has not been previously reported. METHOD This study included 20 patients with histopathologically confirmed DLE lesions. Full history taking was obtained with photo documentation of lesions including the sites involved, the number of lesions per site, and the total number of lesions affecting every patient. Finally, a dermoscopic examination was performed. RESULTS Almost 85% of patients had only cutaneous DLE lesions, while 15% showed both cutaneous and mucosal lesions. Follicular keratotic plugging (56.1%) and scales (52.6%) were the most frequently detected dermoscopic criteria. A significant correlation was found between lesion's age and the following dermoscopic criteria: (early lesions: follicular keratotic plugs and perifollicular white halos; while late lesions: telangiectasia and white structureless areas). Furthermore, telangiectasia, white structureless areas, and ulceration were found in dermoscopy of mucosal DLE. Also, telangiectasia, brown pigment spots, scales, white structureless areas, bleeding spots, and erosions were detected in dermoscopy of labial DLE. Moreover, labial storiform telangiectasia was seen under dermoscopy in patients with associated SLE. CONCLUSIONS Dermoscopy is a valuable tool for diagnosing DLE at different sites and in differentiating between the early and end-stage lesions. Herein, we reported the first dermoscopic view for DLE affecting the lips and oral mucosa. Labial storiform telangiectasia could be a dermoscopic sign of coexisting SLE.

Hand, foot and mouth disease in an adult.

Author(s): Pintor, Emilio; Herreros, Benjamín; Gargantilla, Pedro; Gutiérrez, María Jose

Source: Infection; Jun 2018; vol. 46 (no. 3); p. 437-438

Publication Type(s): Academic Journal

Abstract: The article presents a case study of a 41-year-old healthy male diagnosed with the hand, foot and mouth disease (HFMD) and received symptomatic therapy with NSAID. Family history of the patient revealed the patient’s 2-year-old daughter recently had HFMD from an outbreak at her daycare. The study reveals that in children, the disease usually presents with vesicles or ulcers in the oral cavity occurring on the buccal mucosa and tongue, and also blisters in hands, feet and buttocks.


Author(s): Rissa, E; Kurki, T; Laine, J; Närhi, T

Source: The European journal of prosthodontics and restorative dentistry; May 2018; v26 (2); p95-99

Publication Type(s): Journal Article

Abstract: Implant-supported overdenture is a well-established treatment option for many patients who have functional problems with conventional dentures. It may be primary choice for patients with altered jaw anatomy, neuromuscular disorders, pronounced gag reflex, severe residual ridge resorption and oral tissue defects. In this article we describe a case report, where tongue cancer patients occlusion was rehabilitated with an implantretained overdenture. In 2001 patient was
operated for squamous cell carcinoma on the left side of the tongue. Before preoperative radiation therapy, small residual mandibular dentition was removed because of its poor prognosis. Radiation dose on mandible was 57-66 Gy. After tumor surgery patient received conventional complete dentures. Ten years later, the patient was referred again to the Turku University Central Hospital due to constant ulceration under the mandibular denture. The residual ridge of the mandible was severely resorbed. Patient's existing lower complete denture was replaced with a milled bar-retained overdenture on four implants. Treatment turned out to be challenging due to severely restricted tongue movement and tissue defects.

Salivary Function and Oral Health Problems in Crohn’s Disease Patients.

Author(s): de Vries, Silvia A G; Tan, Christopher X W; Bouma, Gerd; Forouzanfar, Tim; Brand, Henk S;
Source: Inflammatory bowel diseases; May 2018; vol. 24 (no. 6); p. 1361-1367
Publication Type(s): Journal Article
Abstract:BackgroundIn Crohn's disease (CD) patients, many oral complaints have been reported. The aim of this study was to determine whether salivary function is contributing to reduced oral health in CD. Oral and dental complaints in patients were explored. The prevalence of xerostomia in conjunction with salivary flow rates and biochemical saliva composition was studied.MethodsThe Xerostomia Inventory score (XI-score), the salivary flow rates, the concentrations of salivary amylase and mucin 5B, and the type of oral and dental complaints were evaluated. These outcomes were stratified by disease activity, using the Harvey Bradshaw Index (HBI) and the Inflammatory Bowel Disease Questionnaire (IBDQ-9).ResultsFifty-three CD patients in a Dutch tertiary referral hospital were included. Of the patients evaluated, 9.4% had hyposalivation under resting conditions, and 28.3% had hyposalivation under chewing stimulated conditions. Saliva secretion rates were not correlated to XI-scores. Median XI-score was 25 (11-45). XI-scores were correlated to the IBDQ scores (r = -0.352, P = 0.010). Salivary mucin 5B was correlated to disease activity (r = 0.295, P = 0.04). Regarding the number of oral complaints, a correlation with disease activity (HBI r = 0.349, P = 0.011) and experienced xerostomia (r = -0.554, P = 0.000) was observed. Oral and dental problems like oral ulcers (37.7%) and cavities (46%) occurred more frequently in CD patients, especially when compared with a non-IBD population.ConclusionsOral and dental complaints are common in CD patients. Xerostomia is correlated with disease activity-associated quality of life and with the number of oral and dental complaints. Changes in salivary function may contribute to reduced oral health in CD patients. 10.1093/ibd/izy017_video1izy017.video15776803023001.

Association between oral mucosal lesions and crack and cocaine addiction in men: a cross-sectional study.

Author(s): Cury, Patricia Ramos; Araujo, Nara Santos; das Graças Alonso Oliveira, Maria;
Source: Environmental science and pollution research international; May 2018
Publication Type(s): Journal Article
Abstract:The aim of this cross-sectional study was to evaluate the prevalence of oral mucosal lesions (OMLs) and their association with crack/cocaine addiction in men. Clinical oral examination was performed in 161 adult male patients at the School of Dentistry of the Federal University of Bahia, Brazil. Crack/cocaine addiction was determined from the medical records, and all drug-addicted individuals used both crack and cocaine. All participants (40 crack/cocaine-addicted men and 121 non-addicted men) underwent a systematic evaluation of the lips, labial mucosa, commissures, buccal mucosa and sulcus, gingiva and alveolar ridge, tongue, floor of the mouth, and soft and hard palate by a single examiner. Bivariate and regression analyses were conducted to assess for the presence of OMLs and the association of OMLs with crack/cocaine addiction. OMLs were found in 22 participants with a significantly greater prevalence in the crack/cocaine-addicted group (25 vs. 9.9%;
The most prevalent types of lesions in the addicted group were traumatic ulcer and actinic cheilitis (7.5% for each) followed by fistulae associated with a retained dental root (5%). After adjusting for covariates, crack/cocaine addiction was significantly associated with OMLs (OR = 2.87; 95% CI = 1.08-7.67; p = 0.03). The prevalence of OMLs was higher in crack/cocaine-addicted individuals, and crack/cocaine addiction was significantly associated with OMLs. A public health program aimed at the early diagnosis and treatment of OMLs is vital to improving the oral health status of individuals addicted to crack/cocaine.

**Oral lichenoid reaction showing multiple ulcers associated with anti-programmed death cell receptor-1 treatment: A report of two cases and published work review.**

**Author(s):** Obara, Koya; Masuzawa, Mamiko; Amoh, Yasuyuki  
**Source:** The Journal of dermatology; May 2018; vol. 45 (no. 5); p. 587-591  
**Publication Type(s):** Journal Article  
**Abstract:** Anti-programmed cell death receptor-1 (PD-1) antibodies represent an effective treatment opinion for advanced melanoma and non-small-cell lung cancer, as well as other cancerous entities. Immune checkpoint inhibitors such as anti-PD-1 antibody result in a unique side-effect profile, commonly described as immune-related adverse events (irAE). These irAE affect the skin, gastrointestinal tract, liver, endocrine system and other organ systems. We report two cases of oral lichenoid reaction showing multiple ulcers associated with nivolumab treatment. Both patients presented with multiple ulcers covered with fibrinous plaque over the entire oral mucosa, lips and tongue. Histopathological examination of ulceration showed epithelial necrosis and subepidermal clefts with dense band-like layers of lymphohistiocytic infiltrate within the upper dermis. Nivolumab was interrupted in both cases. Case 1 responded well to topical corticosteroids. Case 2 required oral corticosteroids, however, nivolumab could be restarted without recurrence of oral ulcers. We provide a comprehensive review of reported cases of lichenoid reaction showing multiple oral ulcers associated with anti-PD-1 therapy to date. Early recognition and management may improve treatment, avoid discontinuation of life-saving therapy and maintain quality of life in these patients.

**Prevalence of oral mucosal lesions in hemodialysis patients and association with mortality: a prospective cohort study**

**Author(s):** Ruospo M.; Natale P.; Saglimbene V.; Graziano G.; Celia E.; Gelfman R.; Leal M.; Torok M.  
**Source:** Nephrology Dialysis Transplantation; May 2018; vol. 33  
**Publication Type(s):** Conference Abstract  
**Abstract:** Introduction and Aims: Oral infections, mucosal lesions and impaired oral health are highly prevalent and frequently severe for adults treated with long-term hemodialysis. We aimed to evaluate the prevalence of mucosal lesions and association with mortality outcomes among hemodialysis patients. Methods: Data were obtained from the ORAL-D study. The ORAL-D study was a multinational cohort study that involved a comprehensive, standardized oral and dental examination among 4726 patients with end-stage kidney disease treated with long term hemodialysis in 7 countries in Europe and South America. Oral mucosal lesions were ulceration, white stain, red stain, neoformation, petechial lesions, geographical tongue, scrotal tongue, thrush, and herpes, assessed by trained dentists according to standard WHO guidelines. The association between mucosal lesions and all-cause and cardiovascular mortality was estimated using a Cox proportional hazard regression model. Analyses were adjusted for sociodemographic and clinical variables (country, age, sex, education, smoking history, prior myocardial infarction, diabetes, hemoglobin, serum albumin, serum phosphorus, time on dialysis and body mass index). The primary outcome was all-cause mortality. Results: Overall, 70 participants (1.7%) had mucosal ulceration, 147 (3.5%) participants had white stain, 169 (4%) had red stain, 85 (2%) had neoformation, and 331
(7.9%) had petechial lesions. 207 (4.9%) had geographical tongue and 450 (10.7%) had scrotal tongue. Thrush was observed in 192 participants (4.6%). Twenty-one participants had oral herpetic lesions. During a median 3.47 (1.55-5.78) months of follow-up, there were 2114 deaths including 1013 cardiovascular deaths. In unadjusted survival analyses, the proportion of patients who died was higher among those with red stain, scrotal tongue, and petechial lesions. Similarly, the estimated proportion of patients who had a cardiovascular death was higher among those with red stain, scrotal tongue, oral petechial lesions, neoformation, and oral thrush. When adjusting for clinical and sociodemographic factors, only the presence of oral thrush was significantly associated with an increased risk of all cause (adjusted HR 1.37, 95% CI 1.17-1.60) and cardiovascular mortality (adjusted HR 1.64, 95% CI 1.09-2.46). This association was confirmed in competing risks analysis and using a shared frailty model to account for clustering by country. Conclusions: There is generally limited evidence of an independent association between oral mucosal lesions and mortality outcomes among hemodialysis patients.

**When medications are guilty**

**Author(s):** Baroncelli S.; Para O.; Blasi E.; Florenzi C.; Finocchi M.; Corbo L.; Turchi V.; Rocchi F.;

**Source:** Italian Journal of Medicine; May 2018; vol. 12 (no. 2); p. 25-26

**Publication Type(s):** Conference Abstract

**Abstract:** A 62-year-old woman was admitted to our Hospital for the development of blisters and ulcers in the trunk and mucosal desquamation in the mouth and lips. She was healthy since ten days earlier when she began to take lamotrigine for chronic headache. Physical examination was unremarkable. Chest X-ray revealed no consolidation. Abdominal ultrasound did not show sources of infection. Laboratory tests showed no neutrophilic leukocytosis (8,400 WBC/mm3) and normal procalcitonin (<0.01 ng/ml) and C-reactive protein (<9 mg/l) values. The test for autoantibody on patient serum samples was negative. The above condition was suspected for Stevens-Johnson syndrome (SJS) and empirical corticosteroid therapy was administered. On the following days the patient showed a rapid improvement. SJS is a type of severe skin reaction with less than 10% of body surface area involved. The most common cause is medications but other causes can include infections or the cause may remain unknown. The diagnosis is based on patient’s story and clinical features but a skin biopsy can be helpful to identify other dermatological diseases. Initially, treatment is similar to thermal burns therapies, and continued care can only be supportive and symptomatic with intravenous fluids, analgesics and nasogastric or parenteral feeding. Beyond this kind of supportive care, no treatment is accepted and treatment with corticosteroids is controversial for the increased risk of long hospital stays and complication rates. SJS constitutes a dermatological emergency with a mortality rate of around 5%.

**Potentially malignant lesions**

**Expression of SOX2 and EGFR in ameloblastoma, odontoameloblastoma and ameloblastic carcinoma**

**Author(s):** Sanjai K.; Shivalingaiah D.; Kumar H.M.; Baker A.; Sangappa S.B.

**Source:** Journal of Clinical and Diagnostic Research; Jul 2018; vol. 12 (no. 7)

**Publication Type(s):** Article

**Abstract:** Introduction: While de novo Ameloblastic Carcinomas (ACs) are easily diagnosed, it is the benign Ameloblastoma (AM) showing areas of malignant transformation which is a diagnostic challenge. SOX2, a transcription factor and Epidermal Growth Factor Receptor (EGFR) are oncogene
on virtue of being embryogenic including odontogenic and adult stem cell regulator. Both are aberrantly expressed and amplified in several epithelial human cancers and have been used as immunohistochemical markers. Aim: To determine the expression of SOX2 and EGFR in AM, Odontoameloblastoma (OA) and AC in order to assess efficacy of the markers in differentiating these tumours. Materials and Methods: This retrospective study was conducted to determine the immunohistochemical expression of SOX2 and EGFR on microscopic sections of AM (n=11), OA (n=2) and AC (n=6) retrieved from archives of the Department of Oral Pathology, Vydehi Institute of Dental Sciences, Bengaluru, India, from the period of January 2010 to December 2015. The data obtained were analysed using statistical software IBM SPSS version 21.0. Results: EGFR expression was noted in all cases of AM, OA and AC. Eight cases (72.72%) of AM showed SOX2 negative expression. Five cases (83%) of AC showed SOX2 positive expression (p>=0.05). Both the cases of OA demonstrated SOX2 positivity. Two cases (50%) of recurrent AMs (n=4) showed SOX2 overexpression. Conclusion: While SOX2 has negative expression in AM, its positivity in OA and AC reiterates, its role in presence of cell lineage of tooth development and as an adjunct marker to highlight suspicious tumour aggregates respectively. SOX2 overexpression in recurrent cases of AM can be used to follow-up the patient. Strong EGFR overexpression indicates possibility of anti EGFR treatment modality for both AM and AC. Copyright © 2018, Journal of Clinical and Diagnostic Research. All rights reserved.

Proliferative leukoplakia: Proposed new clinical diagnostic criteria

Author(s): Villa A.; Woo S.B.; Menon R.S.; Kerr A.R.; De Abreu Alves F.; Guollo A.; Ojeda D.
Source: Oral Diseases; Jul 2018; vol. 24 (no. 5); p. 749-760
Publication Type(s): Article
Abstract:Objective: We aimed to characterize proliferative verrucous leukoplakia (PVL) from a clinical and histopathological standpoint and suggest an updated classification. Subjects and Methods: Records of patients seen at three oral medicine centers with a clinical diagnosis of PVL were reviewed for clinical and histopathological features and malignant transformation (MT). Results: There were 42 patients (median age: 69 years [range: 36-88]; 35 females). 12.2% were current smokers. Family history of cancer was present in 43.7% of patients. Partial demarcation of lesion margins was present in 31.3% of lesions, followed by verrucous (27.5%), smooth (22.7%) erythematous (22.3%), and fissured (18.3%) appearance. Large and contiguous and multisite and non-contiguous lesions comprised 57.1% (24/42) and 35.7% (15/42) of PVL cases, respectively. 19.1% had prominent erythema (erythroleukoplakia). The most common histopathological diagnosis at first visit was hyperkeratosis without dysplasia (22/42; 56.4%). MT occurred in 71.4% patients after a median of 37 months [range: 1-210] from initial visit; erythroleukoplakia exhibited MT in 100% of cases. Conclusion: The generic term "proliferative leukoplakia (PL)" may be more appropriate than PVL because 18.3% were fissured and 22.7% erythematous. We also propose the term proliferative erythroleukoplakia to more accurately describe the subset of PL with prominent erythema, which had the highest MT rate. Copyright © 2018 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd. All rights reserved.

Cowden Syndrome Associated with Severe Periodontal Disease: A Short Literature Review and a Case Report.

Author(s): Perić, Marina; Toma, Selena; Lasserre, Jérôme Frédéric; Brecx, Michel
Source: Oral health & preventive dentistry; Jun 2018 ; p. 1-8
Publication Type(s): Journal Article
Abstract: PURPOSEThe aim of this literature review and case report was to point out the relationship between Cowden Syndrome (CS) and severe periodontitis. CS is a rare autosomal dominant disorder
characterised by skin and oral hamartomas, and is associated with an increased risk of cancer development. **CASE REPORT**

The case of a 43-year-old male patient affected by Cowden syndrome and presenting severe periodontitis was reported. 

**RESULTS**

It can be suggested that the specific gingival morphology of the patient with CS might be a risk factor for the development of periodontal disease, as described in the present case report. 

**CONCLUSION**

Early diagnosis is crucial in patients affected by CS. The dentist may be the first to notice any atypical changes in the oral cavity and refer the patient for further examinations. Moreover, the mucosal and skin changes have a tendency to appear prior to the malignancies associated with the syndrome. This highlights the responsibility of the dentist in the early diagnosis of this progressive pathological syndrome.

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**The use of platelet-rich fibrin as a hemostatic material in oral soft tissues.**

**Author(s):** de Almeida Barros Mourão, Carlos Fernando; Calasans-Maia, Mônica Diuana;  
**Source:** Oral and maxillofacial surgery; Jun 2018  
**Publication Type(s):** Journal Article  
**Abstract:** The control of postoperative bleeding represents one of the main intercurrent events associated with soft tissue surgical procedures in the oral cavity. In this context, platelet-rich fibrin (PRF) membranes are materials with great potential for optimizing soft tissue healing and induction of hemostasis. This interventional case series describes the treatment of 10 patients with excisional biopsy of benign oral cavity lesions, following a screening sequence at the surgery clinic of a Brazilian dental school between the years of 2015 and 2017. After treatment with PRF, patients presented mean time for postoperative hemostasis of 10.3 ± 2.5 s, requiring the average use of three membranes to cover the surgical area. The results suggest that the use of platelet-rich fibrin membranes may represent a feasible alternative hemostatic material for the treatment of oral lesions.

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**Maxillomandibular giant osteosclerotic lesions.**

**Author(s):** Ledesma-Montes, Constantino; Jiménez-Farfán, María Dolores;  
**Source:** Journal of applied oral science : revista FOB; Jun 2018; vol. 26 ; p. e20170535  
**Publication Type(s):** Journal Article  
**Available at Journal of Applied Oral Science - from Scientific Electronic Library Online**  
**Abstract:** INTRODUCTION Giant Osteosclerotic Lesions (GOLs) are a group of rarely reported intraosseous lesions. Their precise diagnosis is important since they can be confused with malignant neoplasms. OBJECTIVE This retrospective study aimed to record and analyze the clinical and radiographic Giant Osteosclerotic Lesions (GOLs) detected in the maxillomandibular area of patients attending to our institution. Materials and Methods: Informed consent from the patients was obtained and those cases of 2.5 cm or larger lesions with radiopaque or mixed (radiolucent-radiopaque) appearance located in the maxillofacial bones were selected. Assessed parameters were: age, gender, radiographic aspect, shape, borders, size, location and relations to roots. Lesions were classified as radicular, apical, interradicular, interradicular-apical, radicular-apical or located in a previous teeth extraction area. Additionally, several osseous and dental developmental alterations (DDAs) were assessed. RESULTS Seventeen radiopacities in 14 patients were found and were located almost exclusively in mandible and were two types: idiopathic osteosclerosis and condensing osteitis. GOLs were more frequent in females, and in the anterior and premolar zones. 94.2% of GOLs were qualified as idiopathic osteosclerosis and one case was condensing osteitis. All studied cases showed different osseous and dental developmental alterations (DDAs). The most common were: Microdontia, hypodontia, pulp stones, macrodontia and variations in the mental foramina. CONCLUSION GOLs must be differentiated from other radiopaque benign and malignant tumors. Condensing osteitis, was considered an anomalous osseous response induced by a chronic
low-grade inflammatory stimulus. For development of idiopathic osteosclerosis, two possible mechanisms could be related. The first is modification of the normal turnover with excessive osseous deposition. The second mechanism will prevent the normal bone resorption, arresting the osseous breakdown process.

**Pathogenesis of primordial odontogenic tumour based on tumourigenesis and odontogenesis.**

**Author(s):** Mikami, Toshinari; Bologna-Molina, Ronell; Mosqueda-Taylor, Adalberto; Ogawa, Ikuko

**Source:** Oral diseases; Jun 2018

**Publication Type(s):** Journal Article

**Abstract:** OBJECTIVE Primordial odontogenic tumour (POT) is a rare benign mixed epithelial and mesenchymal odontogenic tumour. POT is composed of dental papilla-like tissue covered with cuboidal to columnar epithelium that resembles to inner and outer enamel epithelium of the enamel organ without dental hard tissue formation. The aim of this study was to examine pathogenesis of POT based on tumourigenesis and odontogenesis. SUBJECTS AND METHODS Six cases of POT were submitted for study. DNA analysis and transcriptome analysis were performed by next-generation sequencing. Expression of amelogenin, ameloblastin and dentin sialophosphoprotein (DSPP) was examined by immunohistochemistry. RESULTS There were no gene mutations detected in any of analysed 151 cancer- and 42 odontogenesis-associated genes. Enamel protein-coding genes of Amelx, Ambn and Enam, and dentin protein-coding genes of Col1a1, Dspp, Nes and Dmp1 were expressed, whereas expression of dentinogenesis-associated genes of Bglap, Ibbsp and Nfic was negative or very weak suggesting inhibition of dentin formation in POT after odontoblast differentiation. Immunoreactivity of amelogenin, ameloblastin and DSPP was detected in POT. CONCLUSION Pathogenesis of POT is considered to be genetically different from other odontogenic tumours. It is suggested that inhibition of enamel and dentin formation in POT is due to defects in dentin formation process.

**In Vivo Multimodal Optical Imaging: Improved Detection of Oral Dysplasia in Low-Risk Oral Mucosal Lesions.**

**Author(s):** Yang, Eric C; Schwarz, Richard A; Lang, Alexander K; Bass, Nancy E; Badaoui, Hawraa

**Source:** Cancer prevention research (Philadelphia, Pa.); Jun 2018

**Publication Type(s):** Journal Article

**Abstract:** Early detection of oral cancer and oral premalignant lesions (OPLs) containing dysplasia could improve oral cancer outcomes. However, general dental practitioners have difficulty distinguishing dysplastic OPLs from confounder oral mucosal lesions in low-risk populations. We evaluated the ability of two optical imaging technologies, autofluorescence imaging (AFI) and high-resolution microendoscopy (HRME), to diagnose moderate dysplasia or worse (ModDys+) in 56 oral mucosal lesions in a low-risk patient population, using histopathology as the gold standard, and in 46 clinically normal sites. AFI correctly diagnosed 91% of ModDys+ lesions, 89% of clinically normal sites, and 33% of benign lesions. Benign lesions with severe inflammation were less likely to be correctly diagnosed by AFI (13%) than those without (42%). Multimodal imaging (AFI+HRME) had higher accuracy than either modality alone; 91% of ModDys+ lesions, 93% of clinically normal sites, and 64% of benign lesions were correctly diagnosed. Photos of the 56 lesions were evaluated by 28 dentists of varied training levels, including 26 dental residents. We compared the area under the receiver operator curve (AUC) of clinical impression alone to clinical impression plus AFI and clinical impression plus multimodal imaging using k-Nearest Neighbors models. The mean AUC of the dental residents was 0.71 (range: 0.45-0.86). The addition of AFI alone to clinical impression slightly lowered the mean AUC (0.68; range: 0.40-0.82), whereas the addition of multimodal imaging to clinical impression increased the mean AUC (0.79; range: 0.61-0.90). Based on these findings,
multimodal imaging could improve the evaluation of oral mucosal lesions in community dental settings.

**A rare case of oral metastasis of colon adenocarcinoma.**

**Author(s):** Romanet, I; Lan, R; Ordioni, U; Albertini, A F; Campana, F  
**Source:** Journal of stomatology, oral and maxillofacial surgery; Jun 2018; vol. 119 (no. 3); p. 229-231  
**Publication Date:** Jun 2018  
**Publication Type(s):** Journal Article  
**PubMedID:** 29475082  
**Abstract:** INTRODUCTION Metastatic carcinoma of the colon is frequently encountered. In the literature, metastasis of malignant tumors in the buccal cavity are rare. They represent less than 1% of oral malignant lesions. OBSERVATION We present a case of oral metastasis of colon adenocarcinoma in the mandible of a 62-year-old patient. The physical examination revealed a swelling in the mandibular symphysis associated with dental displacement. The panoramic X-ray showed significant bone lysis of the symphysis. The neoplastic tissue showed marked positivity for Cytokeratin 20 and CDX2, confirming the diagnosis of metastasis of the oral cavity from colorectal adenocarcinoma. DISCUSSION Metastatic adenocarcinoma from the colon to the oral cavity are rare but should be included in the differential diagnosis of tumors in the oral cavity.

**Histopathologic analysis of gingival lesions: A 20-year retrospective study at one academic dental center.**

**Author(s):** Alblowi, Jazia A; Binmadi, Nada O  
**Source:** Journal of clinical and experimental dentistry; Jun 2018; vol. 10 (no. 6); p. e561  
**Publication Type(s):** Journal Article  
**Available at** Journal of clinical and experimental dentistry - from Europe PubMed Central - Open Access  
**Abstract:** Background The gingiva is part of the periodontium supporting structures surrounding the teeth and commonly involved in gingival and periodontal conditions. Assessing the distribution of gingival lesions is important for evaluating the prevalence of periodontal disease in the population to optimize the oral health care services. The purpose of this study is to report the frequency and distribution of gingival lesions biopsied from 1996-2016. Material and Methods This cross-sectional retrospective study retrieved data from all gingival lesions biopsied from 1996-2016 and sent to the King Abdulaziz University Dental Hospital oral pathology laboratory. Histologic sections were reviewed in a blinded manner by a certified oral pathologist to confirm the initial histologic diagnosis. Results Of the 1,248 oral-maxillofacial lesions, 119 (9.5%) gingival lesions were diagnosed. The mean age was 41.58 years. Gingival lesions were more prevalent in female patients than male patients (53.8%). The most common diagnoses were reactive lesions (41.2%). Pyogenic granuloma was the predominant lesion in the category (n=26, 21.8%), and followed by inflammatory conditions (24.4%), benign neoplasm (9.2%), malignant neoplasm (7.6%), epithelial lesions (7.6%), miscellaneous (5%), and immune-mediated diseases (5%). Squamous cell carcinoma was the only malignant neoplasm reported (7.6%; mean age, 57.44 years) and more common in male than female patients (2:1). Most biopsies were sent from oral and maxillofacial surgeons (55.6%) followed by general dentists (22.2%) and periodontists (12.8%). Conclusions Pyogenic granuloma was the most common gingival lesion. Squamous cell carcinoma was the only malignant lesion in which histologic examination was the definitive diagnostic measure. This study provides information about the frequencies and distributions of gingival lesions over 20 years. Key words: Gingival biopsies, retrospective, reactive lesions, oral pathology.
Recurrent symptomatic cemento-osseous dysplasia: A case report.

**Author(s):** Min, Chang-Ki; Koh, Kwang-Joon; Kim, Kyoung-A

**Source:** Imaging science in dentistry; Jun 2018; vol. 48 (no. 2); p. 131-137

**Publication Type(s):** Journal Article

**Abstract:** Cemento-osseous dysplasia (COD) is a benign fibro-osseous lesion of bone, in which normal bone is replaced by fibrous tissue, followed by calcification with osseous and cementum-like tissue. COD is classified into 3 categories according to its location: periapical, focal, and florid COD (FCOD). On radiography, FCOD appears radiolucent in its early stages. As it matures, radiopacities appear within the lesion, causing them to show a mixed appearance of radiolucency and radiopacity. Because FCOD is usually asymptomatic and grows in a self-limited manner, it does not require treatment. Secondary infection is the most frequent cause of symptomatic cases. We report a case of FCOD with symptoms that appeared after a dental restoration procedure and persisted after repeated operations. The purpose of this report is to emphasize the importance of thorough radiological evaluations of patients with FCOD before treatment.

Peri-implant squamous cell carcinoma.

**Author(s):** Ito, K; Takahashi, K; Eda, T; Kondoh, T; Goss, A

**Source:** Australian dental journal; Jun 2018; vol. 63 (no. 2); p. 261-264

**Publication Type(s):** Case Reports

**Abstract:** Peri-implant squamous cell carcinoma is an uncommon pathological manifestation, whereas peri-implantitis is commonly found in association with dental implants. Both present similarly with loss of supporting soft and hard tissue around dental implants; therefore, a careful differential diagnosis is required. The present case concerns a 62-year-old Japanese man who had a dental implant which had been in the left maxillary incisor region for 4 years who apparently developed peri-implantitis. This did not respond to localized therapy and antibiotics so was referred for specialist surgical management. A biopsy confirmed it to be a squamous cell carcinoma rather than an inflammatory lesion. A literature review shows that this is an unusual presentation without a previous history of malignancy, mucosal disease or risk factors for cancers. Although rare, the possibility of peri-implant squamous cell carcinoma should be borne in mind by all practitioners who monitor implant patients.

Recurrent aphthous ulceration: an epidemiological study of etiological factors, treatment and differential diagnosis.

**Author(s):** Queiroz, Salomão Israel Monteiro Lourenço; Silva, Marcus Vinícius Amarante da

**Source:** Anais brasileiros de dermatologia; Jun 2018; vol. 93 (no. 3); p. 341-346

**Publication Type(s):** Journal Article

**Abstract:** BACKGROUND Recurrent aphthous ulcerations are common benign ulcerated lesions on the mouth, whose etiology is poorly understood, with controversial treatment and difficult to control in clinical practice. OBJECTIVE To evaluate the cases of recurrent aphthous ulcerations with a focus on treatment, diagnosis and etiology. METHOD This is a retrospective study of the cases of the Oral Diagnosis service of the Rio Grande do Norte Federal University in Natal/RN. Data such as sex, age, race, location, smoking habits, types of treatment, relapsing episodes, laboratory test results and clinical characteristics were collected. The associations between the variables were analyzed using
A total of 4895 patients were seen in the service over a period of 11 years. Of these, 161 (3.3%) had complaints of oral aphthous ulcerations, of which 76 (47.2%) were diagnosed as suffering from recurrent aphthous ulcerations and 68 (42.2%) with clinical information necessary for evaluation. The tongue was the most affected anatomical region, with 27 individuals (39.7%), followed by the buccal mucosa, with 22 cases (32.3%).

STUDY LIMITATIONS
Retrospective study with data from medical records.

CONCLUSION
Dental surgeons, dermatologists and otorhinolaryngologists are the main responsible for the first contact with patients with this disease and should be attentive to the clinical aspects and treat each patient in an individualized way, since the therapy is palliative, its diagnosis is by exclusion and its etiology is unknown.

A multicenter case registry study on medication-related osteonecrosis of the jaw in patients with advanced cancer

Author(s): Schiodt M.; Vadhan-Raj S.; Chambers M.S.; Nicolatou-Galitis O.; Politis C.; Coropciuc R

Source: Supportive Care in Cancer; Jun 2018; vol. 26 (no. 6); p. 1905-1915

Publication Type(s): Article

Abstract: Purpose: This observational case registry study was designed to describe the natural history of cancer patients with medication-related osteonecrosis of the jaw (ONJ) and evaluate the ONJ resolution rate. Methods: Adults with a diagnosis of cancer and with a new diagnosis of ONJ were enrolled and evaluated by a dental specialist at baseline and every 3 months for 2 years and then every 6 months for 3 years until death, consent withdrawal, or loss to follow-up. The primary endpoint was the rate and time course of ONJ resolution. Secondary endpoints included frequency of incident ONJ risk factors, ONJ treatment patterns, and treatment patterns of antiresorptive agents for subsequent ONJ. Results: Overall, 327 patients were enrolled; 207 (63%) were continuing on study at data cutoff. Up to 69% of evaluable patients with ONJ had resolution or improvement during the study. ONJ resolution (AAOMS ONJ staging criteria) was observed in 114 patients (35%); median (interquartile range) time from ONJ onset to resolution was 7.3 (4.5-11.4) months. Most patients (97%) had received antiresorptive medication before ONJ development, 9 patients (3%) had not; 68% had received zoledronic acid, 38% had received denosumab, and 10% had received pamidronate (56% had received bisphosphonates only, 18% had received denosumab only, and 21% had exposure to both). Conclusions: These results are consistent with those observed in clinical trials evaluating skeletal-related events in patients with advanced malignancy involving bone. Longer follow-up will provide further information on ONJ recurrence and resolution rates between medically and surgically managed patients.

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Carotid aneurysms: unusual referrals from general dental practice.

Author(s): Rees-Stoner, O; Jenkinson, A; Shah, K; Kittur, M

Source: British dental journal; May 2018; vol. 224 (no. 10); p. 777-778

Publication Type(s): Journal Article

Abstract: Oral and maxillofacial surgeons carry out the diagnosis and treatment of diseases affecting the mouth, jaws, face and neck. They provide a critical referral service for dentists in general practice, with the most suspicious of these being sent as ‘urgent suspected cancer’, or ‘USC’. According to national guidelines, such cases must be seen within 14 days. In January and February 2017, the oral and maxillofacial team in Morriston hospital received two such referrals from separate GDPs in the locality. Both were prioritised and seen within the two week window on consultant clinics. These two cases presented as enlarging, firm and painful neck swellings in otherwise relatively healthy adults, with no classical risk factors for malignancy, such as smoking,
high alcohol intake or HPV virus. There was no dental pathology noted in either. Following clinical examination and special investigations within the OMFS department in Morriston Hospital, both patients were diagnosed, and treated under the vascular surgical team via surgical repair for carotid aneurysms. This is a condition rarely considered by dentists, and an uncommon differential diagnosis of a neck lump.

White oral mucosal lesions among the Yemeni population and their relation to local oral habits.

Author(s): Al-Maweri, Sadeq A; Al-Jamaei, Aisha; Saini, Rajan; Laronde, Denise M; Sharhan, Amany

Source: Journal of investigative and clinical dentistry; May 2018; vol. 9 (no. 2); p. e12305

Publication Type(s): Journal Article

Abstract: Aim: The aim of the present study was to assess the prevalence and risk factors of white oral mucosal lesions among Yemeni adults; in particular, those who chew khat and tobacco.

Method: The present cross-sectional study included 1052 dental patients aged 15 years and older. A detailed oral examination was performed by a single examiner in accordance with standard international criteria.

Results: Overall, 25.2% of the study participants presented with one or more white lesions. The most prevalent lesions were khat-induced white lesion (8.8%), leukoedema (5.1%), and frictional keratosis (3.9%). Potentially malignant lesions, such as lichen planus, leukoplakia, and smokeless tobacco-induced lesions, were seen in 2.4%, 1.2%, and 1.7% of participants, respectively. Moreover, three cases of oral cancer were identified. The presence of white lesions was found to be significantly associated with advanced age (P = .004), male gender (P = .009), and khat/tobacco chewing habits (P < .001).

Conclusion: The present study demonstrates a high prevalence of oral benign and potentially malignant white lesions. Further, it highlights the urgent need to develop and implement new government policies to regulate the sale of these products to reduce the prevalence of these lesions and the overall incidence of oral cancers in the Yemeni population.
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