

# Oral & Maxillofacial Surgery

Current Awareness Newsletter

May 2015



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## Contents

Your Friendly Local Librarian.....	2
New from the Cochrane Library of Systematic Reviews.....	3
Recent Literature Searches on Oral and Maxillofacial Surgery.....	3
Current Awareness Database Articles on Oral and Maxillofacial Surgery .....	4
Oral surgery.....	4
Bisphosphonate-related osteonecrosis of the jaw .....	5
Maxillofacial.....	7
Cleft lip and palate .....	11
Journal Tables of Contents.....	15
Head and Neck .....	15
British Journal of Oral and Maxillofacial Surgery.....	15
Oral Surgery Oral Medicine Oral Pathology Oral Radiology .....	15
Oral Surgery .....	15
The Cleft Palate-Craniofacial Journal.....	15
New from the Dental Elf .....	16

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## New from the Cochrane Library of Systematic Reviews

PROTOCOL: [Interventions for preventing osteoradionecrosis of the jaws in people receiving head and neck radiotherapy](#)

Michael Duchnay, Howard Tenenbaum, Robert Wood, Hamid Reza Raziee, Prakeshkumar S Shah, Amir Azarpazhooh

Published 27 February 2015

PROTOCOL: [Interventions for preventing oral mucositis in patients with cancer receiving treatment: oral cryotherapy](#)

Philip Riley, Anne-Marie Glenny, Helen V Worthington, Anne Littlewood, Jan E Clarkson, Martin G McCabe

Published 24 February 2015

## Recent Literature Searches on Oral and Maxillofacial Surgery

Below is a sample of literature searches carried out by librarians for UH Bristol members of staff on the subject of maxillofacial and oral surgery. For further details get in touch:

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- Dental abscess sensitivity and antibiotic treatment
- Perioperative and stress steroids
- Bisphosphonate induced osteonecrosis of the jaw
- Vitamin E and pentoxifylline treatment of osteochemonecrosis

# Current Awareness Database Articles on Oral and Maxillofacial Surgery

Below is a selection of articles on oral and maxillofacial surgery recently added to the healthcare databases, grouped in the following categories:

- Oral surgery
- Bisphosphonate-related osteonecrosis of the jaw
- Maxillofacial
- Cleft lip and palate

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](mailto:library@uhbristol.nhs.uk)

## Oral surgery

**Title:** Notch1 mutations are drivers of oral tumorigenesis.

**Citation:** Cancer prevention research (Philadelphia, Pa.), Apr 2015, vol. 8, no. 4, p. 277-286 (April 2015)

**Author(s):** Izumchenko, Evgeny, Sun, Kai, Jones, Sian, Brait, Mariana, Agrawal, Nishant, Koch, Wayne, McCord, Christine L, Riley, David R, Angiuoli, Samuel V, Velculescu, Victor E, Jiang, Wei-Wen, Sidransky, David

**Abstract:** Disruption of NOTCH1 signaling was recently discovered in head and neck cancer. This study aims to evaluate NOTCH1 alterations in the progression of oral squamous cell carcinoma (OSCC) and compare the occurrence of these mutations in Chinese and Caucasian populations. We used a high-throughput PCR-based enrichment technology and next-generation sequencing (NGS) to sequence NOTCH1 in 144 samples collected in China. Forty-nine samples were normal oral mucosa from patients undergoing oral surgery, 45 were oral leukoplakia biopsies, and 50 were chemoradiation-naïve OSCC samples with 22 paired-normal tissues from the adjacent unaffected areas. NOTCH1 mutations were found in 54% of primary OSCC and 60% of premalignant lesions. Importantly, almost 60% of patients with leukoplakia with mutated NOTCH1 carried mutations that were also identified in OSCC, indicating an important role of these clonal events in the progression of early neoplasms. We then compared all known NOTCH1 mutations identified in Chinese patients with OSCC with those reported in Caucasians to date. Although we found obvious overlaps in critical regulatory NOTCH1 domains alterations and identified specific mutations shared by both groups, possible gain-of-function mutations were predominantly seen in Chinese population. Our findings demonstrate that premalignant lesions display NOTCH1 mutations at an early stage and are thus bona fide drivers of OSCC progression. Moreover, our results reveal that NOTCH1 promotes distinct tumorigenic mechanisms in patients from different ethnical populations. *Cancer Prev Res*; 8(4); 277-86. ©2014 AACR. See related perspectives, p. 259 and p. 262. ©2014 American Association for Cancer Research.

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**Title: Minimally invasive endoscope-assisted trans-oral excision of huge parapharyngeal space tumors.**

**Citation:** Auris, nasus, larynx, Apr 2015, vol. 42, no. 2, p. 179-182 (April 2015)

**Author(s):** Li, Shang-Yi, Hsu, Ching-Hui, Chen, Mu-Kuan

**Abstract:** Parapharyngeal space tumors are rare head and neck neoplasms, and most are benign lesions. Complete excision of these tumors is difficult because of the complexity of the surrounding anatomic structures. The algorithm for excision of these tumors is typically based on the tumor's characteristics; excision is performed via approaches such as the trans-oral route, the trans-cervical route, and even a combination of the trans-parotid route and mandibulotomy. However, each of these approaches is associated with some complications. Endoscope-assisted minimally invasive surgery is being increasingly employed for surgeries in the head and neck regions. It has the advantage of leaving no facial scars, and ensures better patient comfort after the operation. Here, we report the use of endoscope-assisted trans-oral surgery for excision of parapharyngeal space tumors. The technique yields an excellent outcome and should be a feasible, safe, and economic method for these patients. Copyright © 2014 Elsevier Ireland Ltd. All rights reserved.

### **Bisphosphonate-related osteonecrosis of the jaw**

**Title: Medication-related osteonecrosis of the jaws from once per year intravenous zoledronic Acid (reclast): report of 4 cases.**

**Citation:** Implant dentistry, Apr 2015, vol. 24, no. 2, p. 227-231 (April 2015)

**Author(s):** Lee, Cameron Y S, Suzuki, Jon B

**Abstract:** Osteonecrosis of the jaws is a commonly reported side effect with patients prescribed oral antiresorptive medications to treat osteoporosis and osteopenia. Oral antiresorptive agents are considered as the standard of care for the prevention and treatment of women with postmenopausal osteoporosis. Because of patient's noncompliance of the antiresorptive medications, which may require once-weekly or once-monthly oral ingestion, a new once a year intravenous (IV) infusion of zoledronic acid was recently introduced in the management of osteoporosis. Reports of medication-related osteonecrosis of the jaw (MRONJ) have been reported in patients with cancer treated with multiple doses of IV zoledronic acid. However, there is a paucity of reports occurring with the once-yearly infusion of zoledronic acid (Reclast) for the management of osteoporosis. In this article, we report 4 cases of patients who had a history of long-term oral antiresorptive therapy and now were taking the once-yearly IV zoledronic acid (Reclast) and soon developed MRONJ after completing surgery of the maxilla and mandible.

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**Title: Risk factors influencing the duration of treatment with bisphosphonates until occurrence of an osteonecrosis of the jaw in 963 cancer patients.**

**Citation:** Journal of cancer research and clinical oncology, Apr 2015, vol. 141, no. 4, p. 749-758 (April 2015)

**Author(s):** Gabbert, Tatjana I, Hoffmeister, Bodo, Felsenberg, Dieter

**Abstract:** Osteonecrosis of the jaw (ONJ) is an adverse effect that is associated with bisphosphonate (BP) use. Little data are available on risk factors influencing the time of treatment until an osteonecrosis occurs. From 1 Dec 2004 until 21 Sep 2012, the German Register collected all patients with validated diagnoses of ONJ (N = 1,229) that were reported to the national pharmaco-vigilance system or to the Register directly. We analysed 963 patients with cancerous disease and an ONJ during i.v. BP treatment. Duration of BP treatment until first diagnosis of ONJ and Kaplan-Meier curves of ONJ-free survival were analysed stratified by gender, type of BP and type of cancer. Main indications for BP treatment were breast cancer (36 %), multiple myeloma (24 %), prostate cancer (16 %) and kidney cancer (4 %). Men suffered from their ONJ earlier than women. A total of 780 patients (81 %) had their ONJ during zoledronate treatment, 93 (10 %) under pamidronate and 90 (9 %) under ibandronate treatment. ONJ-free survival in single BP users was significantly longer in pamidronate-treated patients than in zoledronate or ibandronate users. Ibandronate users had the shortest median duration of treatment (17 months), similar to that of zoledronate users (21.5 months). Sequential prescription of two different BPs prolonged the period of overall BP treatment until an ONJ occurred. Time of BP treatment was shortest in patients with kidney cancer. Age or a concomitant osteoporosis did not influence the time to event of an ONJ. Systemic risk factors such as gender play a significant role in certain subgroups only. Comparative analysis of different cancer patients helps the treating oncologist/dentist to identify patients with a more imminent risk to develop an ONJ (i.e. kidney cancer, ibandronate/zoledronate use).

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**Title: Successful treatment of bisphosphonate-related osteonecrosis of the jaw (BRONJ) patients with sitafloxacin: new strategies for the treatment of BRONJ.**

**Citation:** Bone, Apr 2015, vol. 73, p. 217-222 (April 2015)

**Author(s):** Ikeda, Tetsuya, Kuraguchi, Jun, Kogashiwa, Yasunao, Yokoi, Hidenori, Satomi, Takafumi, Kohno, Naoyuki

**Abstract:** BRONJ has become a well-known, occasionally severe side effect of bisphosphonate therapy, as well as a clinical problem. Although treatment recommendations exist, no standard therapy has yet been established for BRONJ. Also, these recommendations identify several limitations that prevent clinicians from confidently diagnosing BRONJ. The aim of the present study was to establish a treatment approach in which all patients with exposed, infected bone or intraoral/extraoral fistulas were treated with sitafloxacin (STFX). We examined 20 BRONJ patients, fourteen with cancer and six with osteoporosis. We used the current updated definition of BRONJ (12), except that we included patients who had shown symptoms for a minimum of only one month, rather than two months. Thus half of our patients had infection with no exposed, necrotic bone in the oral cavity. We purposely excluded all patients exhibiting no signs of infection (current Stages 0 and 1). In addition, each potentially causative organism was isolated from pus collected from an intraoral or extraoral fistula in ten patients on their first visit to our department. 90% of the patients

had received a course of treatment with common antibiotics. STFX was administered to all patients. We then re-evaluated the lesion every other week, to determine whether epithelialization was present. We recommended surgical treatment for cases without epithelialization within 4 weeks after the onset of administration of STFX even if bone was not exposed at the lesion. 19 of our 20 cases of Stages 2-3 BRONJ responded to 2-10 weeks of STFX treatment by entering either a remission or healed phase. While surgery was done on thirteen cases, seven others reached such phases without surgery. Every patient had at least one bacterial species that showed resistance to common antibiotics. All species in all patients were susceptible to STFX. Our results indicate that STFX, with or without minor surgery, gives a high probability of controlling infection in BRONJ patients with persistent infection after use of common antibiotics, leading to remission and/or complete healing in 95% of patients. Copyright © 2014. Published by Elsevier Inc.

**Title: Teriparatide therapy for bisphosphonate-related osteonecrosis of the jaw associated with dental implants.**

**Citation:** Implant dentistry, Apr 2015, vol. 24, no. 2, p. 222-226 (April 2015)

**Author(s):** Doh, Re-Mee, Park, Hye-Jeong, Rhee, Yumie, Kim, Hyun Sil, Huh, Jisun, Park, Wonse

**Abstract:** This report describes a case of teriparatide (TPTD) therapy for bisphosphonate (BP)-related osteonecrosis of the jaw induced after implant placement. A 75-year-old woman taking oral BP was referred with uncontrolled osteonecrosis of the mandible related to the implant placement. With conservative treatment, BP was suspended and daily subcutaneous injections of 20 µm/d TPTD were started. After 4 months of the therapy, fixture removal and sequestrectomy were performed. Histological analysis revealed necrotic lamellar bone and empty osteocytic lacunae. In contrast, multiple irregular reversal lines of the lamellar bone and active osteoblasts were noted adjacent to the lesion. There was a significant increase in serum C-terminal telopeptide cross-link of type 1 collagen and serum osteocalcin after commencement of the therapy. After 7 months off therapy, the serum levels of the 2 markers remained at a high level compared with the baseline.

## Maxillofacial

**Title: Surgical management of maxillofacial fibrous dysplasia under navigational guidance.**

**Citation:** The British journal of oral & maxillofacial surgery, Apr 2015, vol. 53, no. 4, p. 336-341 (April 2015)

**Author(s):** Wang, Y, Sun, G, Lu, M, Hu, Q

**Abstract:** Fibrous dysplasia is a benign and slowly progressive disorder of bone in which normal cancellous bone is replaced by immature woven bone and fibrous tissue. Precise excision of the lesion is crucial to restore function and aesthetics. We present our experience using surgical navigation technology for the recontouring of the faces of 8 patients with maxillofacial fibrous dysplasia who were treated from 2012-2013, all of whom were thought suitable for surgical recontouring. Preoperative computed tomography (CT) scans were used to make a virtual plan based on the patient's mirrored anatomy. During the operation we fixed a rigid digital reference

frame to the patient's forehead or mandible, depending on the site of the lesion. The patient and the virtual image were matched through an individual recording technique. A pointing device was in constant use to find out whether the extent of resection was consistent with the preoperative design, and we assessed the surgical outcome by fusion of the preoperative planning and postoperative CT reconstruction images. The acquisition of the data sets was uncomplicated, and the use of surgical navigation improved the safety and the accuracy of the recontouring. There were no complications during 1-2 years follow up. Navigational guidance based on a virtual plan is safe and accurate, and is of value in the management of maxillofacial fibrous dysplasia. Copyright © 2015 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

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**Title: Reputation of Oral and Maxillofacial Surgery in the UK: the patients' perspective.**

**Citation:** The British journal of oral & maxillofacial surgery, Apr 2015, vol. 53, no. 4, p. 321-325 (April 2015)

**Author(s):** Abu-Serriah, M, Dhariwal, D, Martin, G

**Abstract:** Our intention is to shed theoretical and practical light on the professional reputation of Oral and Maxillofacial Surgery (OMFS) in the UK by drawing on theories from management literature, particularly concerning reputation. Since professional reputation is socially constructed by stakeholders, we used interpretivist methods to conduct a qualitative study of patients (stakeholders) to gain an insight into their view of the profession. Findings from our focus groups highlighted the importance of "soft-wired skills" and showed a perception - reality gap in the interaction between patients and doctors. They also highlighted the importance of consistency, relational coordination, mechanisms to enable transparent feedback, and professional processes of governance. To help understand how best to manage the reputation of the specialty, we also explored how this is affected by the media and the Internet. Copyright © 2015 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

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**Title: Alveolar soft part sarcoma of the oral and maxillofacial region: clinical analysis in a series of 18 patients.**

**Citation:** Oral surgery, oral medicine, oral pathology and oral radiology, Apr 2015, vol. 119, no. 4, p. 396-401 (April 2015)

**Author(s):** Wang, Hong-Wei, Qin, Xing-Jun, Yang, Wen-Jun, Xu, Li-Qun, Ji, Tong, Zhang, Chen-Ping

**Abstract:** To summarize the clinical features, diagnosis, treatment strategies, and prognosis of alveolar soft part sarcoma (ASPS) of the oral and maxillofacial region. We performed a retrospective study in a consecutive series of 18 patients with ASPS of the oral and maxillofacial region between 1995 and 2013. Demographic characteristics, tumor sizes, sites, tumor metastasis, diagnosis, treatments, and overall follow-ups were documented. The 18 patients were diagnosed pathologically with primary tumor developed on the tongue (10), the cheek (5), the pharynx (1), and

the gingiva (2) with an average tumor size of 4 cm. At the latest follow-up, 1 patient with lung metastases survived for 23 months; 1 died 3 months after the confirmation of local recurrence and multiple pulmonary metastases; the rest of the patients were disease free and remained in good health. ASPS of the oral and maxillofacial region appears to have special clinical characteristics. Copyright © 2015. Published by Elsevier Inc.

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**Title: The role of women in academic oral and maxillofacial surgery.**

**Citation:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Apr 2015, vol. 73, no. 4, p. 579. (April 2015)

**Author(s):** Laskin, Daniel M

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**Title: Clinical efficacy of growth factors to enhance tissue repair in oral and maxillofacial reconstruction: a systematic review.**

**Citation:** Clinical implant dentistry and related research, Apr 2015, vol. 17, no. 2, p. 247-273 (April 2015)

**Author(s):** Schliephake, Henning

**Abstract:** Provide a comprehensive overview on the clinical use and the efficacy of growth factors in different reconstructive procedures in the oral maxillofacial area. A systematic review of the literature on the clinical use of human and human recombinant growth factors in oral maxillofacial reconstruction has been performed. The use of autogenous growth factors in platelet concentrates (PCs) has shown to be beneficial in the treatment of intrabony pockets at a reasonable level of evidence by improving probing depth and clinical attachment levels as well as linear bone fill within the limits of the observation periods. The application in conjunction with non-autogenous graft materials has been superior to the use of PCs only or grafting materials alone. No benefits have been shown for the use of PCs in recession treatment. When used in furcation treatment, probing depth, clinical attachment level and linear bone fill have been reported to improve significantly, however, without clinical benefit. No benefit for the final outcome could be shown for the use of PCs neither in sinus lift procedures nor in lateral / vertical crest augmentations. The use of human recombinant growth factors has been so far limited almost exclusively to rhPDGF-BB and rhBMPs (BMP-2, BMP-7 and GDF-5). The use of rhPDGF in the treatment of intrabony pockets has shown a reliable increase in linear bone fill but weaker evidence for permanent improvements of clinical attachment level. So far there is no evidence to support the use in recession treatment, sinus lift procedures and socket healing as well as lateral / vertical augmentations of the alveolar crest. rhBMPs have shown to be effective in enhancing bone formation in socket healing (rhBMP-2) and sinus lift procedures (rhBMP-2 and GDF-5). No controlled studies are available for the use in mandibular segmental repair. Successful reports on this application appear to be limited to primary reconstruction after ablative surgery for benign pathology with preservation of the periosteum. Evidence of clinical efficacy of growth factors in reconstructive procedures in the oral and maxillofacial area is limited. © 2013 Wiley Periodicals, Inc.

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**Title: Epidemiology of maxillofacial injuries in ontario, Canada.**

**Citation:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Apr 2015, vol. 73, no. 4, p. 693.e1 (April 2015)

**Author(s):** Al-Dajani, Mahmoud, Quiñonez, Carlos, Macpherson, Alison K, Clokie, Cameron, Azarpazhooh, Amir

**Abstract:** The aims of this study were to 1) calculate rates for maxillofacial (MF) injury-related visits in emergency departments (EDs) and hospitals in Ontario, Canada, 2) identify and rank common causes for MF injuries, 3) investigate the variation and trends in MF injuries according to gender, age, and socioeconomic status, and 4) describe the geographic distribution of MF injuries. An 8-year retrospective study design was implemented. The Discharge Abstract Database and the National Ambulatory Care Reporting System datasets were used. After examining demographic and diagnostic information, frequencies, percentages, and rates were calculated. Color-coded maps were created using ArcGIS to display the geographic distribution of MF injuries. From 2004 through 2012, 1,457,990 ED visits and 41,057 hospitalizations occurred as a result of MF injury in Ontario. The mean age of patients for each ED visit was 30.6 years and for each hospitalization was 52.6 years. Rates of ED visits and hospitalizations owing to MF injury show a slight decrease during the 8-year period. MF injuries were most frequent in the evening, during the weekends, and during the summer. Falls were reported as the leading cause of MF injuries. Rural areas had higher rates of ED visits and hospitalizations. This study highlighted the public health impact of MF injuries, offering policy makers important epidemiologic information, which is fundamental to formulate and optimize measures aimed at protecting Canadians from injuries that are largely predictable and preventable. Future injury prevention programs should enhance the population-based approach and focus on high-risk groups such as male youth and elderly women in low-income families. Copyright © 2015 American Association of Oral and Maxillofacial Surgeons. Published by Elsevier Inc. All rights reserved.

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**Title: Assault-related maxillofacial injuries: the results from the European Maxillofacial Trauma (EURMAT) multicenter and prospective collaboration.**

**Citation:** Oral surgery, oral medicine, oral pathology and oral radiology, Apr 2015, vol. 119, no. 4, p. 385-391 (April 2015)

**Author(s):** Boffano, Paolo, Roccia, Fabio, Zavattero, Emanuele, Dediol, Emil, Uglešić, Vedran, Kovačić, Žiga, Vesnaver, Aleš, Konstantinović, Vitomir S, Petrović, Milan, Stephens, Jonny, Kanzaria, Amar, Bhatti, Nabeel, Holmes, Simon, Pechalova, Petia F, Bakardjiev, Angel G, Malanchuk, Vladislav A, Kopchak, Andrey V, Galteland, Pål, Mjøen, Even, Skjelbred, Per, Bertin, Helios, Marion, F, Guiol, Julien, Corre, Pierre, Løes, Sigbjørn, Lekven, Njål, Laverick, Sean, Gordon, Peter, Tamme, Tiia, Akermann, Stephanie, Karagozolu, K Hakki, Kommers, Sofie C, Forouzanfar, Tymour

**Abstract:** The aim of this study is to present and discuss the demographic characteristics and patterns of assault-related maxillofacial fractures as reported by a European multicenter prospective

study. Demographic and injury data were recorded for each patient who was a victim of an assault. Assaults represented the most frequent etiology of maxillofacial trauma with an overall rate of 39% and the values ranging between 60.8% (Kiev, Ukraine) and 15.4% (Bergen, Norway). The most frequent mechanisms of assault-related maxillofacial fractures were fists in 730 cases, followed by kicks and fists. The most frequently observed fracture involved the mandible (814 fractures), followed by orbito-zygomatic-maxillary complex fractures and orbital fractures. Our data confirmed the strong possibility that patients with maxillofacial fractures may be victims of physical aggression. The crucial role of alcohol in assault-related fractures was also confirmed by our study. Copyright © 2015 Elsevier Inc. All rights reserved.

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**Title:** Effect of light aging on silicone-resin bond strength in maxillofacial prostheses.

**Citation:** Journal of prosthodontics : official journal of the American College of Prosthodontists, Apr 2015, vol. 24, no. 3, p. 215-219 (April 2015)

**Author(s):** Polyzois, Gregory, Pantopoulos, Antonis, Papadopoulos, Triantafillos, Hatamleh, Muhanad

**Abstract:** The aim of this study was to investigate the effect of accelerated light aging on bond strength of a silicone elastomer to three types of denture resin. A total of 60 single lap joint specimens were fabricated with auto-, heat-, and photopolymerized (n = 20) resins. An addition-type silicone elastomer (Episil-E) was bonded to resins treated with the same primer (A330-G). Thirty specimens served as controls and were tested after 24 hours, and the remaining were aged under accelerated exposure to daylight for 546 hours (irradiance 765 W/m<sup>2</sup>). Lap shear joint tests were performed to evaluate bond strength at 50 mm/min crosshead speed. Two-way ANOVA and Tukey's test were carried out to detect statistical significance (p

## Cleft lip and palate

**Title:** Absent maxillary lateral incisor as evidence of poor midfacial growth in unilateral cleft lip and palate.

**Citation:** Oral surgery, oral medicine, oral pathology and oral radiology, Apr 2015, vol. 119, no. 4, p. 392-395 (April 2015)

**Author(s):** Hardwicke, Joseph, Chhabra, Purnima, Richard, Bruce

**Abstract:** Objective. The absence of a maxillary permanent lateral incisor in patients with unilateral cleft lip and palate (UCLP) may affect the dental arch relationship. An analysis is performed to investigate the relationship between the maxillary-mandibular dental relationship and the status of the maxillary permanent lateral incisor. Study Design: Patients with non-syndromic UCLP were analysed using the GOSLON Yardstick to assess maxillary-mandibular dental relationship on pre-expansion orthodontic study models. Absence of the permanent upper lateral incisor on the cleft side was assessed from medical records and dental radiographs. Results: A total of 83 subjects were identified: 54 males and 29 females, with 54 having a missing lateral incisor on the cleft side. There was a significant relationship between the GOSLON Yardstick score and the absence of the maxillary permanent lateral incisor on the cleft side (p<0.05). Of those in GOSLON categories 4 and 5, 78% had

a missing lateral incisor compared to 42.3% in GOSLON 1 and 2. Conclusions: Missing lateral incisor may be an indicator of severity of dental arch discrepancy.

**Title: Genetic and non-genetic factors that increase the risk of non-syndromic cleft lip and/or palate development.**

**Citation:** Oral diseases, Apr 2015, vol. 21, no. 3, p. 393-399 (April 2015)

**Author(s):** Bezerra, J F, Oliveira, Ghm, Soares, C D, Cardoso, M L, Ururahy, Mag, Neto, Fpf, Lima-Neto, L G, Luchessi, A D, Silbiger, V N, Fajardo, C M, de Oliveira, S R, Almeida, M das G, Hirata, Rdc, de Rezende, A A, Hirata, M H

**Abstract:** We investigated the relationship between non-syndromic cleft lip/palate (NSCLP) and polymorphisms in methylenetetrahydrofolate reductase (MTHFR), methionine synthase (MTR), methionine synthase reductase (MTRR), and RFC1, as well as the corresponding interactions with environmental factors. One hundred and forty NSCLP patients and their mothers, as well as 175 control individuals and their mothers, were recruited. Information regarding smoking and alcohol consumption was recorded. Blood samples were obtained in order to measure serum folate and cobalamin, as well as, plasma total homocysteine concentrations and to extract DNA. Polymorphisms in MTHFR(677C>T and 1298A>C), MTR(2756A>G), MTR(66A>G), and RFC1(80A>G) were analyzed by PCR-restriction fragment length polymorphism. Among the patients, 59.5% had cleft lip and palate, 22.0% had cleft palate, and 18.5% had cleft lip only. Maternal alcohol consumption and reduced folic acid concentrations in both children and mothers ( $P < 0.001$  and  $P = 0.003$ , respectively) were risk factors for NSCLP. Patients and their mothers carrying the MTHFR 667T allele showed lower serum folate than CC ( $P = 0.011$  and  $P = 0.030$ , respectively). Mothers who carried the MTHFR 1298C allele exhibited increased risk of having a child with NSCLP, after adjusting for alcohol consumption (OR: 1.75, 95% CI: 1.03–2.99,  $P = 0.038$ ). Reduced folic acid levels, alcohol consumption, and the MTHFR 677T and 1298C alleles may have contributed to NSCLP development in this sample population from Rio Grande do Norte.

**Title: Oblique lip-alveolar banding in patients with cleft lip and palate.**

**Citation:** The British journal of oral & maxillofacial surgery, Apr 2015, vol. 53, no. 4, p. 390-392 (April 2015)

**Author(s):** Naidoo, S, Bütow, K-W

**Abstract:** We report an oblique lip-alveolar band, a rare banding of soft tissue that involves the lip and alveolus, which we have found in five patients with cleft lip and palate (0.2%), compared with an incidence of the Simonartz lip-lip band of 5.7%). To our knowledge this has not been reported previously. In two patients the bands affected the cleft lip and alveolus bilaterally, with or without the palatal cleft, and in three the bands were unilateral cleft lip and alveolus with or without the palatal cleft. Copyright © 2015 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

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**Title:** Use of hyperdry amniotic membrane in operations for cleft palate: a study in rats.

**Citation:** The British journal of oral & maxillofacial surgery, Apr 2015, vol. 53, no. 4, p. 358-363 (April 2015)

**Author(s):** Tsuno, Hiroaki, Noguchi, Makoto, Okabe, Motonori, Tomihara, Kei, Yoshida, Toshiko, Nikaido, Toshio

**Abstract:** The growth of maxillary bone and the development of dentition are often impaired in patients who have had pushback operations for repair of a cleft palate. There has been considerable discussion about the most suitable technique or material used in such repairs to resolve the problem. Hyperdry amniotic membrane, a new preservable material derived from human amnion, has recently been introduced in several procedures. We have evaluated its use during pushback surgery in animal studies to try to correct the inhibition of growth and development of the maxilla. Mucosal defects were created in 3-week-old rats, and then covered with hyperdry amniotic membrane or not. Healing was assessed by histological and morphological examination at 1 week and 7 weeks postoperatively. In the group treated with hyperdry amniotic membrane, submucosal tissue was reconstructed successfully during the early postoperative period. Lateral palatal growth was not inhibited as much, and medial inclination of the teeth was less, after a period of growth using this material. The results suggest that hyperdry amniotic membrane is a suitable new dressing material for use in the treatment of cleft palate. Copyright © 2015 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

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**Title:** Maxillary rehabilitation using a removable partial denture with attachments in a cleft lip and palate patient: a clinical report.

**Citation:** Journal of prosthodontics : official journal of the American College of Prosthodontists, Apr 2015, vol. 24, no. 3, p. 250-253 (April 2015)

**Author(s):** Palmeiro, Marina Rechden Lobato, Piffer, Caroline Scheeren, Brunetto, Vivian Martins, Maccari, Paulo César, Shinkai, Rosemary Sadami Arai

**Abstract:** Clefts of the lip and/or palate (CLP) are oral-facial defects that affect health and overall quality of life. CLP patients often need multidisciplinary treatment to restore oral function and esthetics. This paper describes the oral rehabilitation of a CLP adult patient who had maxillary bone and tooth loss, resulting in decreased occlusal vertical dimension. Functional and cosmetic rehabilitation was achieved using a maxillary removable partial denture (RPD) attached to telescopic crowns. Attachment-retained RPDs may be a cost-effective alternative for oral rehabilitation in challenging cases with substantial loss of oral tissues, especially when treatment with fixed dental prostheses and/or dental implants is not possible. © 2014 by the American College of Prosthodontists.

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**Title: Midfacial volumetric and upper lip soft tissue changes after le fort I advancement of the cleft maxilla.**

**Citation:** Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Apr 2015, vol. 73, no. 4, p. 708-718 (April 2015)

**Author(s):** Susarla, Srinivas M, Berli, Jens U, Kumar, Anand

**Abstract:** To analyze, using 3-dimensional photogrammetric data, midfacial soft tissue and volumetric changes in the cleft maxilla after 1- or 2-piece Le Fort I (LF1) advancement. This was a retrospective study of patients with cleft and maxillary hypoplasia who underwent LF1 advancement. The primary predictor variable was the type of advancement (1 piece vs 2 pieces). Outcome measurements were changes in soft tissue linear measurements (subnasale [Sn], labium superius [LS], and stomion [SO]) and midfacial volume after maxillary advancement. Eleven patients (7 male, 4 female) underwent LF1 advancements (4 underwent 2-piece advancement). The mean maxillary advancement was  $6.2 \pm 1.7$  mm. Soft tissue changes at the Sn, LS, and SO were  $5.2 \pm 2.0$ ,  $5.8 \pm 2.5$ , and  $5.2 \pm 1.8$  mm, respectively. The average volume change was  $12.2 \pm 5.7$  cm<sup>3</sup>. The mean ratios of soft tissue change to the amount of maxillary advancement (millimeters per millimeter) at the Sn, LS, and SO were  $0.89 \pm 0.49$ ,  $0.97 \pm 0.44$ , and  $0.89 \pm 0.34$ , respectively. Volume increased by  $2.1 \pm 1.3$  cm<sup>3</sup>/mm. Patients undergoing 1-piece advancement had greater mean advancement and greater soft tissue changes at the LS and SO (P

**Title: Skeletal and soft tissue changes and stability in cleft lip and palate patients after distraction osteogenesis using a new intraoral maxillary device.**

**Citation:** Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Apr 2015, vol. 43, no. 3, p. 323-328 (April 2015)

**Author(s):** Ansari, Edward, Tomat, Catherine, Kadlub, Natacha, Diner, Patrick A, Bellocq, Thomas, Vazquez, Marie-Paule, Picard, Arnaud

**Abstract:** The authors have recently reported on the use of an internal maxillary distraction device. In this study, we report on the hard and soft tissue movements achieved with this intraoral distraction device, and the stability changes after distraction osteogenesis for maxillary hypoplasia in patients with cleft lip and palate. Ten male patients with severe hypoplasia of the maxilla, with complete uni- or bilateral cleft lip and palate were included. The mean age of the patients at the time of operation was 11.91 years ( $\pm 3.41$ ). To evaluate the distraction process and stability, superimpositions on the preoperative lateral cephalograms were performed. The mean follow-up (FU) was 15.42 months ( $\pm 3.94$ ). Cephalometric measurements at all of the maxillary hard and soft tissue points improved significantly. Maxillary point A was advanced by 8.25 mm ( $\pm 3.17$ ; P

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### Head and Neck Vol. 37, iss. 5, May 2015



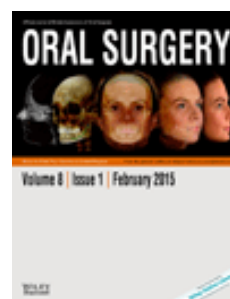
### British Journal of Oral and Maxillofacial Surgery Vol. 53, iss. 5, May 2015



### Oral Surgery Oral Medicine Oral Pathology Oral Radiology Vol. 119, iss. 5, May 2015



### Oral Surgery Vol. 8, iss. 2, May 2015



### The Cleft Palate-Craniofacial Journal Vol. 52, iss. 3, May 2015



## New from the Dental Elf

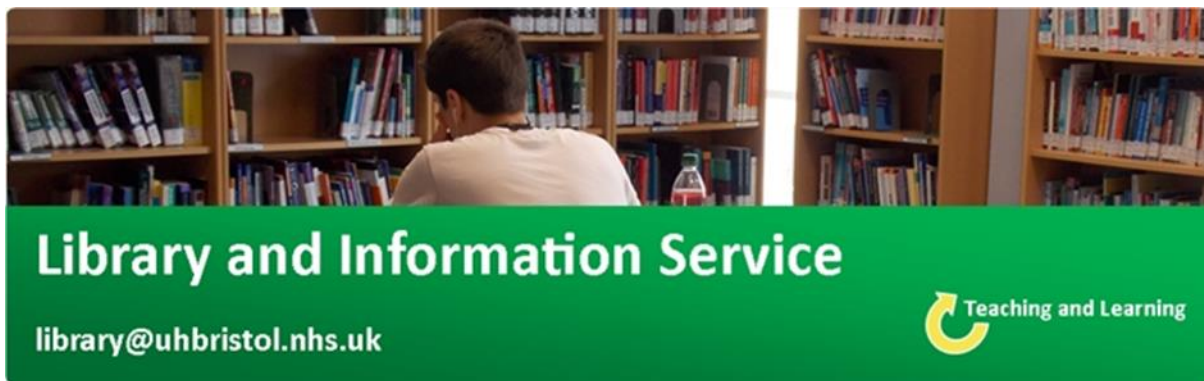
The *Dental Elf* is part of the *National Elf Service* suite of blogs. It highlights recently published studies, giving a summary of the findings and a commentary. Its authors are [Derek Richards](#), Consultant in Dental Public Health and Director of the Centre for Evidence-based Dentistry, and [Dominic Hurst](#), Clinical lecturer in Adult Oral Health at Queen Mary, University of London.

### [Tooth extraction: no need to stop long-term aspirin before suggests review](#)

This review considers whether patients on long-term aspirin therapy should stop aspirin before tooth extraction. The review found 10 studies (3 RCTs). No significant increase in bleeding time was found and although there was an increased risk of haemorrhage, the authors recommended not stopping aspirin therapy.

### [Temporomandibular disorders: open or arthroscopic surgery?](#)

This review looked at surgical approaches for the management of internal derangement of the temporomandibular joint. Seven studies were identified of which 3 were randomised trials. Benefits for some outcomes were found with both open and arthroscopic surgery. However the available evidence is limited.



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