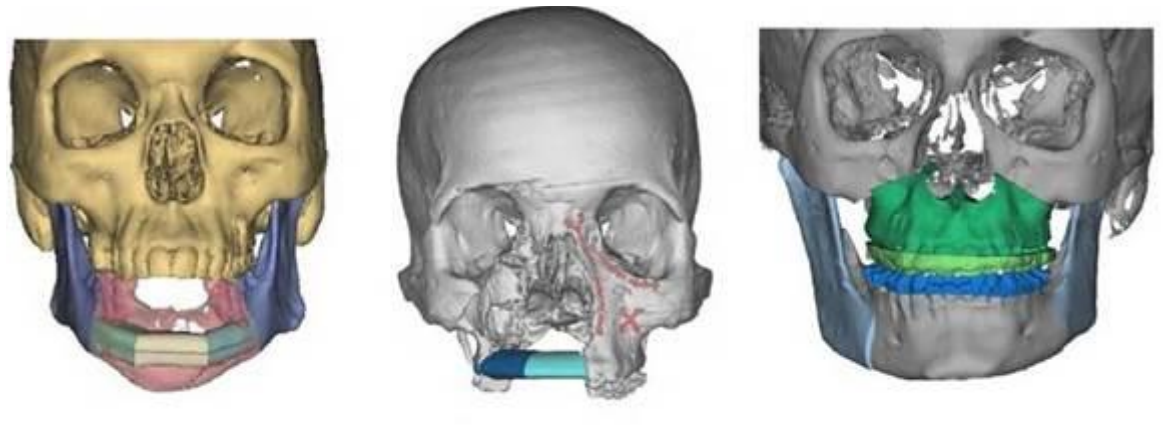
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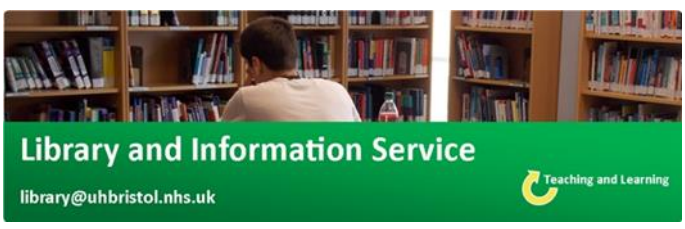
Oral & Maxillofacial Surgery

Current Awareness Newsletter

July/August 2016



Respecting everyone
Embracing change
Recognising success
Working together
Our hospitals.



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Your Friendly Local Librarian…

Whatever your information needs, the library is here to help. As your outreach librarian I offer **literature searching services** as well as training and guidance in **searching the evidence** and **critical appraisal** – just email me at library@uhbristol.nhs.uk

Outreach: Your Outreach Librarian can help facilitate evidence-based practise for all in the oral and maxillofacial surgery team, as well as assisting with academic study and research. We can help with **literature searching, obtaining journal articles and books**, and setting up individual **current awareness alerts**. We also offer one-to-one or small group training in **literature searching, accessing electronic journals, and critical appraisal**. Get in touch: library@uhbristol.nhs.uk

Literature searching: We provide a literature searching service for any library member. For those embarking on their own research it is advisable to book some time with one of the librarians for a 1 to 1 session where we can guide you through the process of creating a well-focused literature research and introduce you to the health databases access via NHS Evidence. Please email requests to library@uhbristol.nhs.uk

Lunchtime Drop-in Sessions

July - December 2016

Literature Searching

An in-depth guide to formulating an effective search strategy and getting the most out of searching key healthcare databases.

Critical Appraisal

How to assess the strengths and weaknesses of research methods. Examining different research designs, bias and validity, and frameworks for systematically appraising a medical paper.

Medical Statistics

A basic introduction to the key statistics in medical articles. Giving an overview of statistics that compare risk, test confidence, analyse clinical investigations, and test difference.

Information Resources

A comprehensive overview of Library subscription resources, freely available online resources and 'grey literature'.

August (12pm)

Tue 2nd	**Critical Appraisal**
Wed 10th	**Statistics**
Thurs 18th	**Information resources**
Fri 26th	**Literature Searching**

September (1pm)

Fri 2nd	**Critical Appraisal**
Mon 5th	**Statistics**
Tue 18th	**Information resources**
Wed 21st	**Literature Searching**
Thurs 29th	**Critical Appraisal**

October (12pm)

Fri 7th	**Statistics**
Mon 10th	**Information resources**
Tue 18th	**Literature Searching**
Wed 26th	**Critical Appraisal**

November (1pm)

Thurs 3rd	**Statistics**
Fri 11th	**Information resources**
Mon 14th	**Literature Searching**
Tues 22nd	**Critical Appraisal**
Wed 30th	**Statistics**

December (12pm)

Thurs 8th	**Information resources**
Fri 16th	**Literature Searching**
Mon 20th	**Critical Appraisal**

OpenAthens

To access electronic resources you need an NHS Athens username and password

To register, click on the link:
https://openathens.nice.org.uk/

You need to register using an NHS PC and an NHS email address.

Registration is a quick, simple process, and will give you access to a huge range of online subscription resources, including:

UpToDate

NHS Evidence

E-journals

E-books

For more information or help with setting up your Athens account, email:
Library@uhbristol.nhs.uk

New from NICE

Worldwide 10-Year Systematic Review of Treatment Trends in Fibula Free Flap for Mandibular Reconstruction

Source: PubMed - 18 June 2016

Abstract

PURPOSE: The purpose of this study was to describe the trends pertaining to the use of the fibula free flap for mandibular reconstruction during the past 10 years.

New from The Cochrane Library

Infraorbital nerve block for postoperative pain following cleft lip repair in children

Authors: **Feriani, Eric Hatanaka, Maria R Torloni, Edina MK da Silva**

First published: 13 April 2016

Assessed as up-to-date: 17 June 2015

Editorial Group: Cochrane Pain, Palliative and Supportive Care Group

Background: Postoperative pain is a barrier to the quality of paediatric care, the proper management of which is a challenge. Acute postoperative pain often leads to adverse functional and organic consequences that may compromise surgical outcome. Cleft lip is one of the most common craniofacial birth defects and requires surgical correction early in life. As expected after a surgical intervention in such a sensitive and delicate area, the immediate postoperative period of cleft lip repair may be associated with moderate to severe pain. Infraorbital nerve block associated with general anaesthesia has been used to reduce postoperative pain after cleft lip repair.

Objectives: To assess the effects of infraorbital nerve block for postoperative pain following cleft lip repair in children.

Interventions for treating bisphosphonate-related osteonecrosis of the jaw (BRONJ)

Authors: **Victoria Rollason, Alexandra Laverrière, Laura CI MacDonald, Tanya Walsh, Martin R Tramèr, Nicole B Vogt-Ferrier**

First published: 26 February 2016

Assessed as up-to-date: 15 December 2015

Editorial Group: Cochrane Oral Health Group

Background: Bisphosphonate drugs can be used to prevent and treat osteoporosis and to reduce symptoms and complications of metastatic bone disease; however, they are associated with a rare but serious adverse event: osteonecrosis of the maxillary and mandibular bones. This condition is called bisphosphonate-related osteonecrosis of the jaw or BRONJ. BRONJ is diagnosed when people who are taking, or have previously taken, bisphosphonates have exposed bone in the jaw area for more than eight weeks in the absence of radiation treatment. There is currently no "gold standard" of treatment for BRONJ. The three broad categories of intervention are conservative approaches (e.g. mouth rinse, antibiotics), surgical interventions and adjuvant non-surgical strategies (e.g. hyperbaric oxygen therapy, platelet-rich plasma), which can be used in combination.

Objectives: To determine the efficacy and safety of any intervention aimed at treating BRONJ.

New From Up-to-Date

Facial trauma in adults

Author: Ryanne J Mayersak, MD, MS

Section Editor

Literature review current through: Jun 2016. | **This topic last updated:** Nov 04, 2014.

INTRODUCTION — The face is vital to human appearance and function. Facial injuries can impair a patient's ability to eat, speak, interact with others, and perform other important functions. Studies suggest that disfiguring facial injuries can have severe psychological and social consequences [1-9]. The treatment of facial injuries must first focus on threats to life, but important secondary considerations are function and long-term cosmesis.

The basic anatomy, clinical manifestations, and acute management of facial trauma in adults will be reviewed here. Eye injuries, pediatric facial trauma, and other aspects of facial trauma management are discussed separately.

Medication-related osteonecrosis of the jaw in patients with cancer

Authors: James R Berenson, MD Alison T Stopeck, MD

Literature review current through: Jun 2016. | **This topic last updated:** Apr 21, 2016.

INTRODUCTION — Osteonecrosis of the jaw (ONJ), which was first described in 2002 [1], is a relatively uncommon but potentially serious side effect of treatment with antiresorptive agents such as intravenous (IV) high potency bisphosphonates (image 1) anddenosumab, which decrease the risk of skeletal-related events (SREs) in patients with cancer and metastatic bone disease. The increased dose intensity of anti-resorptive therapy typically prescribed for cancer indications places cancer patients at a substantially higher risk for ONJ than are patients who receive them for other conditions such as osteoporosis and Paget's disease [2-5]

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

Oral Surgery

Title: Open questions and novel concepts in oral cancer surgery

Citation: European Archives of Oto-Rhino-Laryngology, August 2016, vol./is. 273/

Author(s): Tirelli G., Zacchigna S., Biasotto M., Piovesana M.

Abstract: The persistence of cancerous cells after surgery in oral squamous cell carcinoma (OSCC) represents a major challenge, as it often leads to local recurrences and secondary primary tumors, which are eventually responsible for a large proportion of deaths. This persistence is currently evaluated by histological analyses. In this review we discuss some important pitfalls of the histopathological analysis, such as margin evaluation, specimen shrinkage and T staging. In addition, we critically analyze the appropriateness of current surgical techniques in relation to the concept of field cancerization. Finally, we describe some novel imaging and molecular approaches, which might be useful in tailoring surgical resections and encourage the use of OSCC animal models to explore and provide proof of concept of the feasibility and potential clinical utility of innovative surgical protocols.

Title: Functional swallowing outcomes following treatment for oropharyngeal carcinoma: a systematic review of the evidence comparing trans-oral surgery versus non-surgical management

Citation: Clinical Otolaryngology, August 2016, vol./is. 41/4(371-385)

Author(s): Dawe N., Patterson J., O'Hara J.

Abstract: Background: Trans-oral surgical and non-surgical management options for oropharyngeal squamous cell carcinoma (OPSCC) appear to offer similar survival outcomes. Functional outcomes, in particular swallowing, have become of increasing interest in the debate regarding treatment options. Contemporary reviews on function following treatment frequently include surrogate markers and limit the value of comparative analysis. Objectives of review: A systematic review was performed to establish whether direct comparisons of swallowing outcomes could be made between trans-oral surgical approaches (trans-oral laser microsurgery (TLM)/trans-oral robotic surgery (TORS)) and (chemo)radiotherapy ((C)RT). Type of review: Systematic review. Search strategy: MEDLINE, Embase and Cochrane databases were interrogated using the following MeSH terms: antineoplastic protocols, chemotherapy, radiotherapy, deglutition disorders, swallowing, lasers, and trans-oral surgery. Evaluation method: Two authors performed independent systematic reviews and consensus was sought if opinions differed. The WHO ICF classification was applied to generate analysis based around body functions and structure, activity limitations and participation restriction. Results: Thirty-seven citations were included in the analysis. Twenty-six papers reported the outcomes for OPSCC treatment following primary (C)RT in 1377 patients, and 15 papers following contemporary trans-oral approaches in 768 patients. Meta-analysis was not feasible due to varying methodology and heterogeneity of outcome measures. Instrumental swallowing assessments were presented in 13/26 (C)RT versus 2/15 TLM/TORS papers. However, reporting methods of these studies were not standardised. This variety of outcome measures and the wide-ranging intentions of authors applying the measures in individual studies limit any practical direct comparisons of the effects of treatment on swallowing outcomes between interventions. Conclusions: From the current evidence, no direct comparisons could be made of swallowing outcomes between the surgical and non-surgical modalities. Swallowing is a multidimensional construct, and the range of assessments utilised by authors reflects the variety of available reporting methods. The MD Anderson Dysphagia Inventory is a subjective measure that allows limited comparison between the currently available heterogeneous data, and is explored in detail. The findings highlight that further research may identify the most appropriate tools for measuring swallowing in patients with OPSCC. Consensus should allow their standardised integration into future studies and randomised control trials.

Title: Anesthesia for off-floor dental and oral surgery

Citation: Current Opinion in Anaesthesiology, August 2016, vol./is. 29/4(519-525)

Author(s): Giovannitti J.A.

Abstract: Purpose of review Anesthesia for dentistry is commonly performed outside the operating room. The combination of a shared airway between surgeon and anesthetist, the variety of open airway techniques, and the out-of-operating room setting often results in anxiety and avoidance of dental cases among anesthesia personnel. This review attempts to demystify dental treatment and facilitate the anesthesia provider in providing effective sedation of dental procedures performed in the nonoperating room setting. Recent findings Specific indications for dental anesthesia improve the patient selection process. Airway assessment and strategies to secure the difficult airway are paramount because of the nature of the procedures and the patients on whom they are performed. Pediatric patients and those with special needs present specific preanesthetic assessment, induction, and management challenges. Emergence delirium is disruptive, possibly dangerous, prolongs

recovery time, and may necessitate hospitalization. Simplified techniques and objective recovery criteria are necessary to ensure a safe and smooth discharge to home. Airway fire precautions should not be overlooked given the rare but potential risk of airway fire during dental treatment. Summary This article reviews the indications, facility and equipment needs, monitoring requirements, treatment methods, and recovery protocols necessary for the safe administration of off-floor anesthesia for dentistry.

Title: Transcutaneous vocal cord ultrasonography after oral and maxillofacial surgery requiring intermaxillary fixation: A technical report

Citation: European Journal of Anaesthesiology, August 2016, vol./is. 33/8(598-599)

Author(s): Sanuki T., Miura K., Watanabe T., Ayuse T.

Title: Oral and dental surgery [English;Italian] Chirurgia odontostomatologica

Citation: Dental Cadmos, June 2016, vol./is. 84/6(334)

Author(s): Nicali A.

Title: Telephone review after minor oral surgery

Citation: British Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 54/5(526-530),

Author(s): Wells J.P., Roked Z., Moore S.C., Sivarajasingam V.

Abstract: An audit of outpatient clinic attendances at Cardiff Dental Hospital (between September 2009 and March 2010) showed that 30% of patients failed to attend review appointments after minor operations. To reduce rates of non-attendance we set up a system of telephone review in March 2010. Patients were given a telephone appointment two weeks after their minor operation (mainly removal of lower third molars), instead of an appointment at the outpatient clinic. A trained nurse contacted each patient to complete a structured questionnaire that included questions about numbness, pain, and swelling. During the first year of the project, 1020 patients were booked for telephone review and of these 90% were discharged. 674 (66%) were discharged after telephone review, and 245 (24%) were not contactable. A total of 101 patients (10%) were brought in for clinic review because they reported complications. Estimated staff costs per patient for telephone review and clinic review were 3.05 and 23.55 respectively. Telephone review resulted in a significant reduction in the number of patients who failed to attend the clinic (OR = 0.88, 95% CI 0.81 to 0.96) and facilitated audit of complications. The use of telephone review in conjunction with clinical follow-up for those with postoperative problems allows for cost-effective care with reduced rates of non-attendance.

Title: Validation of metabolic tumor volume as a prognostic factor for oral cavity squamous cell carcinoma treated with primary surgery

Citation: Oral Oncology, June 2016, vol./is. 57/(6-14), 1368-8375;1879-0593 (01 Jun 2016)

Author(s): Zhang H., Seikaly H., Nguyen N.-T., Abele J.T., Dziegielewski P.T., Harris J.R.,

Abstract: SummaryBackground Despite the promise of metabolic tumor volume (MTV) as a risk-stratifying marker, the retrospective design of the initial study limits its generalizability. Therefore, this study sought to validate MTV as a prognostic factor for oral cavity squamous cell carcinoma (OCSCC) treated with primary surgery within an independent data set. Methods The validation data set consisted of 42 patients diagnosed with OCSCC between 2008 and 2012. The original cohort consisted of 80 patients. MTV and SUVmax were calculated for the primary tumor and nodal metastasis separately, as well as combined. Before statistical analysis, MTV and SUVmax values were divided into intertertile thirds to allow for intergroup survival analysis. Validation analysis was conducted on the validation data set alone. Data from both cohorts were then combined (n = 122) to increase statistical power. Results An increase in combined MTV of 17.5 cm³ was associated with statistically significant increase in risk of disease recurrence (HR = 19.2, p < 0.001) and death (HR = 9.2, p < 0.05). Combined SUVmax failed to predict overall (HR = 1.0, p > 0.05) and disease-free survival (HR = 1.0, p > 0.05). Increase in the MTV of the primary tumor was associated with an increase in the risk of disease recurrence (HR = 21.7, p = 0.0001) and risk of death (HR = 7.0, p = 0.0001), while increase in the MTV of the locoregional neck metastasis was not (p > 0.05). An MTV cutoff value of greater than 10.2 cm³ was found to significantly affect survival. Conclusion Due to the reproducibility of MTV findings, this study validates MTV as an independent prognostic factor for OCSCC treated with primary surgery.

Title: Oral mask ventilation is more effective than face mask ventilation after nasal surgery

Citation: Journal of Clinical Anesthesia, June 2016, vol./is. 31/(64-70)

Author(s): Yaziciotlu D., Baran I., Uzumcugil F., Ozturk I., Utebey G., Sayin M.M.

Abstract: Objective To evaluate and compare the face mask (FM) and oral mask (OM) ventilation techniques during anesthesia emergence regarding tidal volume, leak volume, and difficult mask ventilation (DMV) incidence. Design Prospective, randomized, crossover study. Setting Operating room, training and research hospital. Subjects American Society of Anesthesiologists physical status I and II adult patients scheduled for nasal surgery. Interventions Patients in group FM-OM received FM ventilation first, followed by OM ventilation, and patients in group OM-FM received OM ventilation first, followed by FM ventilation, with spontaneous ventilation after deep extubation. The FM ventilation was applied with the 1-handed EC-clamp technique. The OM was placed only over the mouth, and the 1-handed EC-clamp technique was used again. A child's size FM was used for the OM ventilation technique, the mask was rotated, and the inferior part of the mask was placed toward the nose. Measurements The leak volume (MVleak), mean airway pressure (Pmean), and expired tidal volume (TVe) were assessed with each mask technique for 3 consecutive breaths. A mask ventilation grade > 3 was considered DMV. Main results DMV occurred more frequently during FM ventilation (75% with FM vs 8% with OM). In the FM-first sequence, the mean TVe was 249 +/- 61 mL with the FM and 455 +/- 35 mL with the OM (P =.0001), whereas in the OM-first sequence, it was 276 +/- 81 mL with the FM and 409 +/- 37 mL with the OM (P =.0001). Regardless of the order used, the OM technique significantly decreased the MVleak and increased the TVe when compared to the FM technique. Conclusion During anesthesia emergence after nasal surgery the OM may offer an effective ventilation method as it decreases the incidence of DMV and the gas leak

around the mask and provides higher tidal volume delivery compared with FM ventilation.

Bisphosphonate-related osteonecrosis of the jaw

Title: Evolving Role of Molecular Imaging with ¹⁸F-Sodium Fluoride PET as a Biomarker for Calcium Metabolism

Citation: Current Osteoporosis Reports, August 2016, vol./is. 14/4(115-125)

Author(s): Raynor W., Houshmand S., Gholami S., Emamzadehfard S., Rajapakse C.S., Blomberg B.A., Werner T.J., Hoilund-Carlsen P.F., Baker J.F., Alavi A.

Abstract: ¹⁸F-sodium fluoride (NaF) as an imaging tracer portrays calcium metabolic activity either in the osseous structures or in soft tissue. Currently, clinical use of NaF-PET is confined to detecting metastasis to the bone, but this approach reveals indirect evidence for disease activity and will have limited use in the future in favor of more direct approaches that visualize cancer cells in the read marrow where they reside. This has proven to be the case with FDG-PET imaging in most cancers. However, a variety of studies support the application of NaF-PET to assess benign osseous diseases. In particular, bone turnover can be measured from NaF uptake to diagnose osteoporosis. Several studies have evaluated the efficacy of bisphosphonates and their lasting effects as treatment for osteoporosis using bone turnover measured by NaF-PET. Additionally, NaF uptake in vessels tracks calcification in the plaques at the molecular level, which is relevant to coronary artery disease. Also, NaF-PET imaging of diseased joints is able to project disease progression in osteoarthritis, rheumatoid arthritis, and ankylosing spondylitis. Further studies suggest potential use of NaF-PET in domains such as back pain, osteosarcoma, stress-related fracture, and bisphosphonate-induced osteonecrosis of the jaw. The critical role of NaF-PET in disease detection and characterization of many musculoskeletal disorders has been clearly demonstrated in the literature, and these methods will become more widespread in the future. The data from PET imaging are quantitative in nature, and as such, it adds a major dimension to assessing disease activity.

Title: Osteonecrosis of jaw beyond antiresorptive (bone-targeted) agents: new horizons in oncology

Citation: Expert Opinion on Drug Safety, July 2016, vol./is. 15/7(925-935)

Author(s): Fusco V., Santini D., Armento G., Tonini G., Campisi G.

Abstract: Introduction: Osteonecrosis of the jaw (ONJ) is a clinically important, potentially painful and debilitating condition, which can affect the quality of life of cancer patients. Since 2003, ONJ appeared as a Bisphosphonate(BP)-related class effect, and the term Bisphosphonate-Related Osteonecrosis of the Jaw (BRONJ) was widespread. Areas Covered: Under discussion in this review is the fact that ONJ cases have been reported after treatment including antiangiogenic agents and other "targeted therapy", with and without BPs. Consequently, the comprehensive term Medication-Related Osteonecrosis of the Jaw (MRONJ) has been introduced. The clinical aspects and the prognosis of ONJ associated with these new drugs are still less reported, but basing on their pharmacodynamics, they could be different from the well-known BRONJ. Accordingly, recommendations largely in use for

BRONJ should be extended to these new forms, but critically applied and with respect to the individual risk assessment. Expert Opinion: There is a high risk of underdiagnoses for ONJ due to a lack of awareness, and too much restrictive or incomplete diagnostic criteria; at the same time, with regard to ONJ associated to the new non -antiresorptive agents, described here, we observe the strong need to improve the defining of any distinguished feature in their diagnosis, prevention and therapy.

Title: Treatment of bisphosphonate-related osteonecrosis of the jaw with platelet-rich fibrin

Citation: Journal of the Formosan Medical Association, July 2016, vol./is. 115/7(585-586),

Author(s): Tsai L.-L., Huang Y.-F., Chang Y.-C.

Title: Lack of cooperation between physicians and dentists during osteoporosis treatment may increase fractures and osteonecrosis of the jaw

Citation: Current Medical Research and Opinion, July 2016, vol./is. 32/7(1261-1268)

Author(s): Taguchi A., Shiraki M., Sugimoto T., Ohta H., Soen S.

Abstract: Objective: Our previous questionnaire-based survey suggested that discontinuation of antiresorptive agents before tooth extraction may increase adverse events and disturb osteoporosis treatment without completely preventing osteonecrosis of the jaw (O.N.J.). We also found little cooperation between physicians and dentists in Japan. However, limitations of our previous study included a survey of doctors belonging to small clinics and a small sample size. Our current study aimed to confirm the results of our previous survey in doctors mainly belonging to academia. Methods: A structured questionnaire including 14 key clinical queries was sent to 1812 physicians of the Japan Osteoporosis Society, and 629 responses were received. Results: Dentists requested discontinuation of many medications that were not associated with the incidence of O.N.J. A total of 523 respondents had received discontinuation requests from dentists. Of these, 97 respondents experienced 119 adverse events including 25 fractures and seven incidences of O.N.J. The ratios of valid responses for fractures were 3.6% and 5.3% in patients with a discontinuation of <3 and >3 months, respectively. Those for O.N.J. were 0.7% and 1.6%, respectively. Respondents who refused discontinuation requests reported no cases of O.N.J. Approximately 17% of respondents had patients who discontinued osteoporosis treatment following a requested drug discontinuation after tooth extraction. Approximately 62% of respondents did not request oral health care by a dentist before antiresorptive therapy, and 72% reported no cooperation between physicians and dentists in their region. Conclusions: This study reconfirms the results of our previous survey. Discontinuation of antiresorptive treatment may increase both fractures and O.N.J. Immediate development of a strategy for sharing information about O.N.J. among physicians, dentists, and patients is required to reduce the incidence of both O.N.J. and skeletal events in osteoporosis treatment. Study limitations were selection bias due to low response rate and possible inaccurate responses to the questionnaire.

Title: Oncologists awareness about bisphosphonate related osteonecrosis of the jaws

Citation: Journal of the Pakistan Medical Association, July 2016, vol./is. 66/7(880-883)

Author(s): Senturk M.F., Cimen E., Oncul A.M.T., Cambazoglu M.

Abstract: Objective: To evaluate the oncologists thoughts about the positive and adverse effects of bisphosphonates, drug holiday and the awareness about BRONJ. Methods: A written questionnaire was sent to 7 hospitals, which have oncology facilities in Ankara, Turkey. Results were evaluated as percentages. Chi Square and Kruskal Wallis H test was used to analyze the data. Results: A total of 53 oncologists replied to the questionnaire. BRONJ is the most seen complication (66%) due to bisphosphonates usage. Temporary suspension of the drug (52.8%) is the best treatment choice for this complication. Oncologists usually prefered dentist consultatation (39.6%). Conclusion: A good cooperation of oncologists and dentists is very important to prevent BRONJ.

Title: Epidemiological study of alendronate-related osteonecrosis of the jaw in the southeast of Scotland

Citation: British Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 54/5(501-505),

Author(s): Sammut S., Malden N., Lopes V., Ralston S.

Abstract: We aimed to establish the incidence of alendronate-related osteonecrosis of the jaw (ONJ) in the southeast of Scotland, and to assess the effect of corticosteroids on it. We studied a prospective case series of patients between June 2004 and March 2012 separated into steroid and non-steroid groups. There were 34 cases of alendronate-related ONJ and 78 732 drug patient years (DPY) of alendronate, making the overall occurrence 43.1 cases/100 000 DPY. There were 12 patients in the steroid group (mean (range) age 68.2 (48-87) years) making 42.5 cases/100 000 DPY, and 22 in the non-steroid group (mean (range) age 76.2 (63-91) years) making 119.6 cases/100 000 DPY. The mean (range) age at presentation of alendronate-related ONJ was significantly lower in the steroid group (68.2 (48-87) compared with 76.2 (63-91) years, p = 0.019) as was the duration of exposure to alendronate before it developed (28.9 (6-120) compared with 61.3 (13-168) months, p = 0.03). The overall incidence seems to be higher in the southeast of Scotland than elsewhere. Concurrent use of corticosteroids is not associated with an increased incidence of alendronate-related ONJ, but it seems to reduce the duration of exposure before it develops. Age is likely to be a confounding factor.

Title: Prophylactic use of pentoxifylline and tocopherol in patients who require dental extractions after radiotherapy for cancer of the head and neck

Citation: British Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 54/5(547-550)

Author(s): Patel V., Gadiwalla Y., Sassoon I., Sproat C., Kwok J., McGurk M.

Abstract: Osteoradionecrosis (ORN) is a complication seen intermittently in patients who have had radiotherapy to the head and neck, and results of treatment with pentoxifylline and tocopherol (PVe) have been encouraging. As a consequence, some argue that this should be used prophylactically to lower the risk of ORN after dental extractions in this group. We retrospectively analysed data on 390 dental extractions in 82 patients who had had radiotherapy for cancer of the head and neck. Each had been given PVe prophylactically. Only one patient (1.2%) developed ORN (rate/tooth 0.26%). Patients had taken PVe for a mean (SD) of 11 (23) weeks preoperatively and 13.6 (18) weeks postoperatively. The incidence we found was lower than that normally associated with

dental extractions in irradiated patients (7%).

Title: The role of myofibroblasts in the development of osteoradionecrosis in a newly established rabbit model

Citation: Journal of Cranio-Maxillofacial Surgery, June 2016, vol./is. 44/6(725-733)

Author(s): Zong C., Cai B., Wen X., Alam S., Chen Y., Guo Y., Liu Y., Tian L.

Abstract: This study aimed to establish a proper animal model of osteoradionecrosis of jaws (ORNJ) and to observe preliminarily the characteristics of myofibroblasts, the key effector cell of fibrosis, in ORNJ. Rabbit mandibles were irradiated at three different doses based on a human equivalent radiation schedule, and examined by gross manifestation, single-photon emission computed tomography (SPECT), micro-computed tomography, sequential fluorochrome labeling, and histology. Immunohistochemistry staining of alpha-SMA was applied to detect the existence of myofibroblasts. The exposed necrotic bone, which is the main indication of ORNJ, started to be observed at all rabbits at 9 Gy. With the radiation dose increasing, the microarchitecture of the irradiated mandibles was more destroyed, the metabolism and mineralization of the irradiated mandibles diminished, the osteocytes number decreased, and more mature bones were substituted by fibrosis in the irradiated mandibles. In addition, as the radiation dose increased, the myofibroblast number increased and collected around the separated sequestrum, which indicated that myofibroblasts might relate to the pathogenesis of ORNJ. In summary, a clinically translational ORNJ model was successfully established in our study, and the role of myofibroblasts in the pathogenesis of ORNJ is described for the first time.

Title: Low level laser therapy in non-surgical management of osteoradionecrosis of the jaws

Citation: Minerva Stomatologica, June 2016, vol./is. 65/3(185-186)

Author(s): Moreschi C., Appare P., Meleti M., Vescovi P., Bonanini M., Gherlone E.F.,

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Title: Denosumab (XGEVA): Assessment from a pharmacist's perspective

Citation: European Journal of Hospital Pharmacy, June 2016, vol./is. 21/3(175-180)

Author(s): Kramer I.

Abstract: Skeletal-related events (radiation to bone, pathologic fracture, surgery to bone and spinal cord compression) often occur in patients with bone metastases secondary to solid tumours. A recent approach to treatment is the subcutaneous RANK ligand (RANKL) inhibitor, denosumab. RANKL is like bisphosphonates a key mediator of osteoclast-mediated bone loss and destruction in patients with bone metastases. A recent integrated analysis of three phase 3 studies that evaluated its efficacy in patients with bone metastases secondary to solid tumours versus the intravenous bisphosphonate zoledronic acid found that it was superior to the active control. Denosumab significantly delayed the median time to first skeletal-related event (SRE) by 8.2 months compared with zoledronic acid ($p<0.0001$). It also reduced the risk of a first SRE by 17% ($p<0.0001$), and reduced the risk of first and subsequent SREs by 18% ($p<0.001$). Adverse events were generally similar between the two treatment arms, however, in contrast with zoledronic acid, denosumab did not require monitoring or dose modification/withholding based on renal status. Incidence of

acutephase reactions was also lower in the denosumab treatment arm. Hypocalcaemia was, however, more commonly associated with denosumab. Osteonecrosis of the jaw occurred at a similar rate with both treatment options (p=0.13). Disease progression and overall survival were also similar when the two treatments were compared. This review considers the evidence to support the use of currently available treatment options to prevent skeletal-related events and considers their practical application from the perspective of the hospital pharmacist.

Maxillofacial

Title: Computed tomographic evaluation of novel custom-made artificial bones, "CT-bone", applied for maxillofacial reconstruction

Citation: Regenerative Therapy, December 2016, vol./is. 5/(1-8), 2352-3204 (01 Dec 2016)

Author(s): Kanno Y., Nakatsuka T., Saijo H., Fujihara Y., Atsuhiko H., Chung U.-I., Takato T., K.

Abstract: Introduction: We fabricated custom-made artificial bones using three-dimensionally layered manufacturing (3D printing) process, and have applied them to patients with facial deformities. We termed this novel artificial bone the "CT-bone". The aim of the present study was to evaluate the middle- and long-term safety and effectiveness of the CT-bones after transplantation. Methods: The subject areas involved were 23 sites of 20 patients with facial bone deformities due to congenital abnormality, tumor, or trauma. The CT-bones were used for augmentation; they were evaluated by CT images, minimally for 1 year and maximally for 7 years and 3 months (3 years and 1 month on average) after transplantation. Results: No serious systemic events due to the CT-bone graft were found during the observation period (1 year postoperatively). In 4 sites of 4 patients, the CT-bones were removed due to local infection of the surgical wounds at 1-5 years postoperatively. Compatibility of the shapes between the CT-bone and the recipient bone was confirmed to be good during the operation in all of the 20 cases, implying that the CT-bones could be easily installed onto the recipient sites. During the CT evaluation (<7 years and 3 months), no apparent chronological change was seen in the shape of the CT-bones. Sufficient bone union was confirmed in 19 sites. The inner CT values of the CT-bones increased in all the sites. The longer the postoperative period, greater increases in the CT values of the CT-bones tended to be observed. Conclusions: The CT-bone showed maintenance of the original shape and good bone replacement, based on the middle- and long-term follow-ups. In the future, we would make an intelligent type of artificial bones in which bone regeneration is induced by gradually releasing angiogenesis-inducing factors and/or bone-regeneration-inducing factors at the three-dimensionally controlled positions.

Title: Systematic review of Australian policing interventions to reduce alcohol-related violence - A maxillofacial perspective

Citation: Addictive Behaviors Reports, December 2016, vol./is. 4/(1-12)

Author(s): Liu T., Ferris J., Higginson A., Lynham A.

Abstract: Alcohol-related violence remains to be a health concern, and the oral and maxillofacial surgeons are routinely exposed to its impact on the victims and the healthcare

system. At a community level, various policing interventions have been implemented to address this violent crime in and around licensed premises. Current study sought to examine the effectiveness of these interventions in Australia. Ten eligible studies, that evaluated the impact of 15 Australian policing interventions on reducing alcohol-related violence in the night-time economy, were included in this systematic review. Due to the heterogeneity of the study designs and the insufficiency of the reported data, quantitative meta-analysis of the findings was precluded. Instead, a critical narrative approach was used. Police-recorded assault rate was the primary outcome measured to assess the level of alcohol-related violence, which was influenced by the level of police duties implemented during the intervention period. The overall evidence base to support Australian policing interventions was found to be poor and was limited by the low-quality study design observed in the majority of the included studies. However, there is some evidence to suggest interventions involving proactive policing to be more effective than traditional reactive policing. There was also an increased emphasis on developing policing interventions in collaborative partnerships, demonstrating the synergistic benefits in crime prevention through community partnerships, where communities were encouraged to take ownerships of their own problems and develop targeted responses to alcohol-related violence rather than a one-size-fits-all approach. Further research is required to define their effectiveness with the use of more appropriate and robust methodologies.

Title: Evaluation of patients' attitudes to their care during oral and maxillofacial surgical outpatient consultations: The importance of waiting times and quality of interaction between patient and doctor

Citation: British Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 54/5(536-541)

Author(s): Dimovska E.O.F., Sharma S., Trebble T.M.

Abstract: Knowing what patients think about their care is fundamental to the provision of an effective, quality service, and it can help to direct change and reduce costs. Much of the work in oral and maxillofacial departments concerns the treatment of outpatients, but as little is known about what they think about their care, we aimed to find out which aspects were associated with satisfaction. Consecutive patients (n = 244) who attended the oral and maxillofacial outpatient department at Southampton University Hospital NHS Foundation Trust over a 7-day period were given a questionnaire to complete before and after their consultation. It included questions with Likert scale responses on environmental, procedural, and interactive aspects of the visit, and a 16-point scale to rank their priorities. A total of 187 patients (77%) completed the questionnaires. No association was found between expected (p=0.93) or actual (p=0.41) waiting times, and 90% of patients were satisfied with their visit. Seeing the doctor, having confidence in the treatment plan, being listened to, and the ability of the doctor to recognise their personal needs, were ranked as important. Environmental and procedural aspects were considered the least important. These findings may be of value in the development of services to improve patient-centred care.

Title: Singly-qualified medical senior house officer in oral and maxillofacial surgery: Perspectives from a unit

Citation: British Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 54/5(587-589)

Author(s): Solanki K., Bhatti N., Bridle C.

Language: English

Abstract: Despite constituting a minority of senior house officers (SHO) in oral and maxillofacial surgery (OMFS), the number of singly-qualified medical trainees is growing. We describe the experience of a singly qualified medical trainee in OMFS and the unique benefits and opportunities for potential trainees and the department. Overall, the advantages of synergistic training outweigh any deficiencies in knowledge, and in our experience, having both medical and dental trainees in our unit has maximised training opportunities and provided a more holistic approach to patient care. Increased exposure to conditions in the head and neck also benefits trainees who wish to pursue careers in other specialties such as ear, nose, and throat (ENT), neurosurgery, ophthalmology, and plastic surgery.

Title: Feasibility of magnetic activation of a maxillofacial distraction osteogenesis, design of a new device

Citation: Journal of Cranio-Maxillofacial Surgery, June 2016, vol./is. 44/6(684-688)

Author(s): Boisson J., Strozyk H., Diner P., Picard A., Kadlub N.

Abstract: Purpose Distraction osteogenesis is a technique of bone lengthening which uses the bone's natural healing process. Current devices for craniofacial distraction require a transmucosal or transcutaneous activator and are associated with numerous complications. The aim of this study was to evaluate the feasibility of a rodless magnetic activation device that could be used in craniofacial distraction. Methods The method is based on the torque applied between two unaligned permanent magnets. This torque depends on magnet size, shape, composition, magnetization and distance between the two magnets. Using a configuration close to that which would be applied in actual distraction osteogenesis (in terms of the distance between the two magnets), we performed an analytical study and evaluated the results. Results We observed good agreement between the model and the experimental results, finding that the transmitted force value is comparable to the force required in mandibular distraction. Thus, we proposed a design of a new distracting device consisting of a cylindrical permanent magnet diametrically magnetized and fixed to an endless screw along its main axis. Activation of the distraction motion is achieved through interaction of the first magnet with a second cylindrical magnet whose magnetization is orthogonal to its main axis and to the device's endless screw. Conclusion This preliminary study demonstrates that magnetic activation for mandibular osteogenic distraction is feasible and that device size is not a constraint. We propose a prototypic device.

Title: Erratum: Accuracy evaluation of computer-designed surgical guide template in oral implantology (Journal of Cranio-Maxillofacial Surgery (2015) (2189-2194)

Citation: Journal of Cranio-Maxillofacial Surgery, June 2016, vol./is. 44/6(758)

Author(s): Shen P., Zhao J., Fan L., Qiu H., Xu W., Wang Y., Zhang S., Kim Y.-J.

Title: Review of Maxillofacial Hardware Complications and Indications for Salvage

Citation: Craniomaxillofacial Trauma and Reconstruction, June 2016, vol./is. 9/2(134-140)

Author(s): Hernandez Rosa J., Villanueva N.L., Sanati-Mehrizy P., Factor S.H., Taub P.J.

Abstract: From 2002 to 2006, more than 117,000 facial fractures were recorded in the U.S. National Trauma Database. These fractures are commonly treated with open reduction and internal fixation. While in place, the hardware facilitates successful bony union. However, when postoperative complications occur, the plates may require removal before bony union. Indications for salvage versus removal of the maxillofacial hardware are not well defined. A literature review was performed to identify instances when hardware may be salvaged. Articles considered for inclusion were found in the PubMed and Web of Science databases in August 2014 with the keywords maxillofacial trauma AND hardware complications OR indications for hardware removal. Included studies looked at human patients with only facial trauma and miniplate fixation, and presented data on complications and/or hardware removal. Fifteen articles were included. None were clinical trials. Complication data were presented by patient, fractures, and/or plate without consistency. The data described 1,075 fractures, 2,961 patients, and 2,592 plates, nonexclusive. Complication rates varied from 6 to 8% by fracture and 6 to 13% by patient. When their data were combined, 50% of complications were treated with plate removal; this was consistent across the mandible, midface, and upper face. All complications caused by loosening, nonunion, broken hardware, and severe/prolonged pain were treated with removal. Some complications caused by exposures, deformities, and infections were treated with salvage. Exposed plates were treated with flaps, plates with deformities were treated with secondary procedures including hardware revision, and hardware infections were treated with antibiotics alone or in conjunction with soft-tissue debridement and/or tooth extraction. Well-designed clinical trials evaluating hardware removal versus salvage are lacking. Some postoperative complications caused by exposure, deformity, and/or infection may be successfully treated with plate salvage. We propose an algorithm using this review and clinical expertise. We also propose that a national databank be created where surgeons can uniformly compile their patient information and examine it in a standardized format to further our understanding of clinical management.

Title: Autologous Fat Transfer for Esthetic Contouring of Face in Posttraumatic Nonfunctional Maxillofacial Deformities

Citation: Craniomaxillofacial Trauma and Reconstruction, June 2016, vol./is. 9/2(113-120)

Author(s): Agrawal K.S., Bachhav M., Naik C.S., Tanwar H., Sankhe S.S.

Abstract: The transfer of autologous fat has been performed since the 1890s; however, its popularity has increased owing to better understanding of fat harvesting and processing techniques. In this article, fat grafting procedure has been used to correct posttraumatic facial deformities in 25 cases. As healing of grafted fat is unpredictable, we have used longer follow-up of 2 years. Evaluation was performed using facial photographs and MRI scans. Scientific literature describes an absorption rate ranging from 20 to 90%. High fat graft resorption rates have been attributed to traumatic handling of the graft during harvest, processing, and injection. Various processing techniques have been suggested. The goal of these techniques is to obtain greater adipocyte cell survival and, consequently, more reliable clinical results. In our study, we have used syringe aspiration and low-speed centrifuge for processing of fat which has resulted in good clinical outcomes.

Title: Accuracy of primary implant installation in fibula free flap maxillofacial reconstruction using the Alberta reconstruction technique

Citation: International Journal of Computer Assisted Radiology and Surgery, June 2016, vol./is. 11/1 SUPPL. 1(S82-S83)

Author(s): Logan H., Aalto D., Nayar S., Osswald M., Harris J., O'Connell D., Seikaly H.,

Abstract: Purpose A great challenge remains with intuitive intraoperative microvascular jaw reconstruction. Errors in spatial positioning of the fibular osseous segments can often lead to unfavorable osseointegrated implant positions. The Alberta Reconstruction Technique (ART) was evolved from the Rohner Technique in order to undertake fully guided occlusion-based microvascular fibular free flap reconstruction of the jaws in patients with malignant disease. The ART procedure includes fully guided primary osseointegrated implant installation. Preoperative Surgical Design and Simulation (SDS) is carried out and patient specific fibular surgical cutting and drilling guides as well as a transfer template are designed using computer aided design software and manufactured using 3D printing technology (Fig. 1). The intention of the ART procedure is to reduce operative time, reconstruct the jaws with designed anatomical precision, reduce time to jaw reconstruction rehabilitation and improve functional outcomes. The purpose of the present study is to evaluate how accurate the ART procedure is by comparing preoperative planned osseointegrated implant positions to the achieved postoperative spatial positions. Methods In the present study the post-operative medical CT images of 13 patients were digitally registered to the preoperative plan. 10 of the patients underwent maxillary reconstruction and 3 patients had mandibular reconstruction. Cartesian coordinates were obtained for each planned and actual implant position and the deviations between the corresponding coordinates were obtained. The deviations were transformed into the anatomical directions: the medial-lateral direction as pointing towards the mid-sagittal plane, horizontal direction pointing from anterior to posterior (within axial CT plane), and vertical direction as pointing towards the occlusal plane (perpendicular to the CT axial plane). The deviation data was analysed along each anatomical direction by Student's t-test to detect systematic errors in implant positioning. The confidence intervals were included in the analysis as well. Finally, the overall accuracy was described by calculating the distance and the angle between the planned and the actual implant positions. Results An average of 3.6 implants were installed per patient and a total of 47 implants were compared. Along the lateral-medial axis there was no systematic tendency of the actual implant position being more medial (mean = -0.5 mm, t = -1.7, df = 46, p = 0.09). The standard deviation of the differences between the actual and the planned positions was 1.9 mm. The largest deviation to the lateral was 3.8 mm and to the medial 4.4 mm. The actual implant positions in the horizontal direction were slightly more anterior than the planned implant positions (mean = 0.5 mm, t = -2.5, df = 46,p = 0.013, 95 % CI: 0.1 mm-1.0 mm) with a standard deviation of 1.4 mm. The largest deviation to the posterior was 3.7 mm and to the anterior was 4.4 mm. In the vertical direction there was a systematic difference between the planned and the actual vertical position of the implants. The implants were on average 2.1 mm closer to the occlusal surface than planned (mean = 2.1 mm, t = 7.7, df = 46, p Conclusion The ART produces predictable surgical and prosthetic rehabilitation outcomes for patients. The actual position of the implants corresponds well to the planned positions within the axial plane with no important systematic differences in the medio-lateral or antero-posterior directions. The results show that in the vertical spatial position, the implants were closer to the occlusal plane than planned. The reason for the

systematic vertical discrepancy is not evident. Reduction in the prosthetic space could clinically affect the prosthetic treatment of the patient as it leaves limited space for superstructure design and ideal tooth arrangement. However, this will need to be assessed when these patients are seen for their prosthetic phase of treatment. Future research will be conducted in the clinical treatment of patients and how to reduce the deviation to increase the predictability of the outcomes. This information will shape future considerations in preoperative SDS for the ART. (Figure presented).

Title: Erratum: Ameloblastic fibrosarcoma of the mandible: A case report and a review of the literature (Journal of Oral and Maxillofacial Surgery (2015) 73 (1661.e1-1661.e7))

Citation: Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 74/6(1287)

Author(s): Al Shetawi A.H., Alpert E.H., Buchbinder D., Urken M.L.

Publication Type: Journal: Erratum

Title: Management of self-harm injuries in the maxillofacial region: A report of 2 cases and review of the literature

Citation: Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 74/6(1198e1-1198e9),

Author(s): Malaga E.G., Aguilera E.M.M., Eaton C., Ameerally P.

Abstract: Clinicians face numerous challenges when managing psychiatric patients who self-inflict injuries within the maxillofacial region. In addition to a complex clinical examination, there are both surgical and psychiatric factors to consider, such as the risk of damaging vital structures, the exacerbation of the patient's psychiatric status, and the long-term psychosocial and esthetic sequelae. We present 2 cases of adolescents who repeatedly self-inflicted wounds and/or inserted foreign bodies (FBs) into the face, scalp, and neck. The different treatment modalities were based on full evaluation of the patient's clinical, medical, and diagnostic test findings coupled with a psychiatric assessment. The decision for conservative management or surgical intervention was made according to the presence and location of the FBs, degree of hemorrhage, signs and symptoms of infection, and unpleasant scars that could lead to long-term psychological impairment. In most cases, the FBs were removed and the wounds were toileted and closed under local or general anesthesia. We advocate a holistic approach via a multidisciplinary team, which is deemed essential to provide the highest quality of care for patients to reduce the risk of further relapses. Lastly, a satisfactory esthetic outcome is always paramount to achieve long-term psychological and physical welfare.

Title: Microstructural change and cognitive alteration in maxillofacial trauma and mild traumatic brain injury: A diffusion tensor imaging study

Citation: Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 74/6(1197e1-1197e10)

Author(s): Veeramuthu V., Hariri F., Narayanan V., Tan L.K., Ramli N., Ganesan D.

Language: English

Abstract: Purpose The aim of the present study was to establish the incidence of maxillofacial (MF) injury accompanying mild traumatic brain injury (mTBI) and the

associated neurocognitive deficits and white matter changes. Materials and Methods A prospective review of 41 patients with mTBI and maxillofacial injury (with or without intracranial lesion) due to motor vehicle accidents who had admission computed tomography (CT), neurocognitive evaluation, and quantitative diffusion tensor imaging available was performed during admission and at 6 months of follow-up. Descriptive statistics were used for the demographic data, and a paired t test and repeated measure analysis of variance were used to establish the intergroup differences and susceptibility. Results The included patients were relatively young adults, with a mean age of 27.3 +/- 8.8 years and 11.3 +/- 2.1 years of education. Of the 41 patients, 20 (48.8%) had maxillofacial injuries involving the soft tissue and muscles, 18 (43.9%) had facial bone fractures, and 3 (7.3%) had mixed injuries. Of the 41 patients with MF injuries, 28 (68.3%) had intracranial abnormalities found on the admission CT scan. Executive function and attention were significantly altered across the time points, with patients with both MF injury and an intracranial lesion doing poorly at baseline but with improvement 6 months later. In contrast, the patients with no visible intracranial lesion but with MF injuries remained impaired, with signs of a slowed recovery. The fractional anisotropy of the genu of the corpus callosum, anterior limb of the internal capsule, and cingulum for patients with MF injuries but without an intracranial lesion showed trends of reduced integrity over time. Conclusions The presence of MF injury without any intracranial traumatic lesions in patients with mTBI increases the risk of short- and long-term neurocognitive derangement compared with patients with mTBI, MF injury, and intracranial traumatic lesions.

Title: Fibula jaw in a day: State of the Art in Maxillofacial Reconstruction Preliminary findings were presented as an abstract at the meeting of the American Head and Neck Society during the Combined Otolaryngology Spring Meeting; Boston, MA; April 2015

Citation: Journal of Oral and Maxillofacial Surgery, June 2016, vol./is. 74/6(1284e1-1284e15)

Author(s): Qaisi M., Kolodney H., Swedenburg G., Chandran R., Caloss R.

Abstract: Microvascular free tissue transfer has been one of the greatest milestones in reconstruction of the mandible and maxilla after tumor ablative surgery. Although fibula free flap reconstruction allows for immediate bony reconstruction, dental rehabilitation usually requires 6 to 12 months before it is completed. This can have a serious psychological impact on patients because they go without teeth during this timeframe. The "jaw-in-a-day" procedure was previously described by a group at New York University Medical Center. It allowed for tumor removal and full jaw reconstruction and dental rehabilitation in 1 surgery. This report describes 3 patients treated with this novel technique and adds to the 4 cases previously reported in the literature. To their knowledge, the authors are the second group to report on this technique. A series of photographs and videos are referenced in this article to illustrate the different steps used in this procedure.

Title: Relationships among maxillofacial morphologies, bone properties, and bone metabolic markers in patients with jaw deformities.

Citation: International journal of oral and maxillofacial surgery, Aug 2016, vol. 45, no. 8, p. 985-991

Author(s): Saito, D, Mikami, T, Oda, Y, Hasebe, D, Nishiyama, H, Saito, I, Kobayashi, T

Abstract: The aim of this study was to determine the relationships among bone properties, bone metabolic markers, and types of jaw deformity. The subjects were 55 female patients with jaw deformities. Skeletal morphology was examined using lateral cephalograms, and the patients were divided into three groups according to the type of anteroposterior skeletal pattern. Serum osteocalcin, bone alkaline phosphatase, and tartrate-resistant acid phosphatase isoform 5b, as well as deoxypyridinoline in urine, were measured as bone metabolic markers. Quantitative ultrasound (QUS) measurements were used to assess bone properties at the calcaneal bone. The bone volume and bone density of the condylar process were measured in 43 patients by computed tomography. There were no significant differences in bone metabolic markers and QUS parameters between the groups, although bone formation and resorption markers tended to be higher in patients with a protrusive mandible. On the other hand, patients with mandibular retrusion had a higher tendency to have small and dense condylar processes. In conclusion, the results suggest that growth depression or a degenerative change in the mandibular condyle is involved in the pathogenesis of mandibular retrusion, although risk factors for progressive condylar resorption were not determined. Copyright © 2016 International Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.

Title: Perioperative risk factors for postoperative pulmonary complications after major oral and maxillofacial surgery with microvascular reconstruction: A retrospective analysis of 648 cases.

Citation: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Aug 2016, vol. 44, no. 8, p. 952-957

Author(s): Loeffelbein, Denys J, Julinek, Annette, Wolff, Klaus-Dietrich, Kochs, Eberhard, Haller, Bernhard, Haseneder, Rainer

Abstract: Postoperative pulmonary complications (PPCs) are common and result in prolonged hospital stays, higher costs and increased mortality. However, data on the incidence and predictors of PPCs after major oral and maxillofacial surgery with microvascular reconstruction are rare. This retrospective analysis identifies perioperative risk factors for postoperative pulmonary complications (PPCs) after major oral and maxillofacial surgery with microvascular reconstruction. Perioperative data and patient records of 648 subjects were analyzed in the period of June 2007 to May 2013. PPCs were defined as pneumonia, atelectasis, pleural effusions, pulmonary embolism, pulmonary oedema, pneumothorax or respiratory failure. 18.8% of all patients developed PPCs. Patient-related risk factors for PPCs were male sex, advanced age, smoking, alcohol abuse, a body mass index >30, American Society of Anaesthesiologists grade higher than 2, pre-existent pulmonary diseases and preoperative antihypertensive medication. Among the investigated procedure-related variables, the length of the operation, the amount of fluid administration and blood transfusion and an impaired oxygenation index during surgery were shown to be associated with the development of PPCs. Using a multivariable logistic regression model, we identified a body mass index >30, American Society of Anaesthesiologists grade higher than 2 and alcohol abuse as independent risk factors for PPCs. Several perioperative factors can be identified that are associated with the development of PPCs. Patients having one or more of these conditions should be subjected to intensified postoperative pulmonary care

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Title: A systematic review of functional outcome and quality of life following reconstruction of maxillofacial defects using vascularized free fibula flaps and dental rehabilitation reveals poor data quality.

Citation: Journal of plastic, reconstructive & aesthetic surgery : JPRAS, Aug 2016, vol. 69, no. 8, p. 1024-1036,

Author(s): Wijbenga, Johan G, Schepers, Rutger H, Werker, Paul M N, Witjes, Max J H,

Abstract: Reconstruction and oral rehabilitation of segmental maxillofacial defects resulting from ablative surgery is commonly achieved by osteocutaneous vascularized free fibula (VFFF) transplantation combined with implant-supported dental prostheses. We systematically reviewed the literature regarding impact of oral rehabilitation with or without dental implants on functional outcome and quality of life (Qol) following reconstruction of such segmental maxillofacial defects with VFFF. This systematic review was performed according to the PRISMA guidelines. A literature search was conducted using the databases of Cochrane, MEDLINE and EMBASE. Relevant search terms for maxilla or mandible, reconstruction with VFFF, and oral rehabilitation were used. Two reviewers independently assessed the publications using eligibility and research quality criteria (MINORS). In total, 554 unique publications were found. After scrutinization, 2 prospective studies and 8 retrospective case-series without comparison were left for ultimate analysis. Quality ranged from 44% to 88% of the maximum score. Overall survival rate of the VFFF was 99% and the survival rate of dental implants was 95%. Speech intelligibility and overall aesthetic outcome were 'good' to 'excellent'. No statistically significant changes in QoL were found. Methods to measure functional outcome varied strongly, making pooling impossible. Oral rehabilitation with implant-supported dental prostheses after reconstruction of segmental maxillofacial defects with VFFF results in good to excellent speech intelligibility and aesthetics. Results are probably positively biased by the retrospective nature of the studies. In future prospective research, functional outcome measures should be addressed using standardized questionnaires and validated objective tests with adequate follow-up.

Title: Introduction to the Oral and Maxillofacial Pathology focus issue on oral submucous fibrosis.

Citation: Oral surgery, oral medicine, oral pathology and oral radiology, Aug 2016, vol. 122, no. 2, p. 176.,

Author(s): Edwards, Paul C

Title: ADAM10 is essential for cranial neural crest-derived maxillofacial bone development.

Citation: Biochemical and biophysical research communications, Jul 2016, vol. 475, no. 4, p. 308-314,

Author(s): Tan, Yu, Fu, Runqing, Liu, Jiaqiang, Wu, Yong, Wang, Bo, Jiang, Ning, Nie, Ping,

Abstract: Growth disorders of the craniofacial bones may lead to craniofacial deformities. The majority of maxillofacial bones are derived from cranial neural crest cells via intramembranous bone formation. Any interruption of the craniofacial skeleton development process might lead to craniofacial malformation. A disintegrin and metalloprotease (ADAM)10 plays an essential role in organ development and tissue integrity

in different organs. However, little is known about its function in craniofacial bone formation. Therefore, we investigated the role of ADAM10 in the developing craniofacial skeleton, particularly during typical mandibular bone development. First, we showed that ADAM10 was expressed in a specific area of the craniofacial bone and that the expression pattern dynamically changed during normal mouse craniofacial development. Then, we crossed wnt1-cre transgenic mice with adam10-flox mice to generate ADAM10 conditional knockout mice. The stereomicroscopic, radiographic, and von Kossa staining results showed that conditional knockout of ADAM10 in cranial neural crest cells led to embryonic death, craniofacial dysmorphia and bone defects. Furthermore, we demonstrated that impaired mineralization could be triggered by decreased osteoblast differentiation, increased cell death. Overall, these findings show that ADAM10 plays an essential role in craniofacial bone development.

Title: Peel strength and interfacial characterization of maxillofacial silicone elastomers bonded to titanium.

Citation: Dental materials : official publication of the Academy of Dental Materials, Jul 2016, vol. 32, no. 7, p. e137.,

Author(s): Artopoulou, Ioli Ioanna, Chambers, Mark S, Zinelis, Spiros, Eliades, George

Abstract: To investigate the effect of three adhesive primers on the morphology, chemistry and peel bond strength of two maxillofacial silicone elastomers with commercially pure titanium (cpTi). The effect of three primers (PR2:A-304 Primer/A-320 Bonding Enhancer, PR3:Super Bond, and PR4:Super Glue) on cpTi morphology and chemistry were studied by reflected light polarized microscopy (RPOLM) and reflection Fourier-transform infrared microspectroscopy (RFTIRM). For testing the bond strength between two elastomers (EL1:MDX4-4210, EL2:A-2006) and primed cpTi surfaces, a 90° T peel test was performed (PBS), using as reference EL1, EL2 specimens bonded to heat-cured poly(methyl methacrylate) resin (PMMA) primed with A-330G primer (PR1). Failure modes were analyzed under a stereomicroscope, and the percentage of remaining silicone (RS%) on cpTi and PMMA were calculated by image analysis. Scanning electron microscopy/energy dispersive X-ray spectrometry (SEM/EDX) was used to investigate representative failure patterns on cpTi. Data were analyzed with Weibull analysis, ANOVA plus post hoc tests, and Pearson correlation coefficient (a=0.05). Thick-irregular (PR2), thin-smooth (PR3), and uniform-porous (PR4) films were identified on cpTi by RPOLM. RFTIRM revealed: a strong peak of Si-O-Si with a distribution following the outline of the image (PR2); COO-M groups developed, but unevenly distributed (PR3); and reduction in CC groups due to in situ polymerization (PR4). Following PBS, the ranking of the statistical significant differences in Weibull scale parameter (σ0) of the EL1 group was PMMA_PR1>cpTi_PR2,cpTi_PR3>cpTi_PR4, whereas for the EL2 group cpTi_PR2>PMMA_PR1>cpTi_PR4,cpTi_PR3. For RS%, the ranking in the EL1 group was: PMMA_PR1>cpTi_PR2>cpTi_PR3>cpTi_PR4, and in the EL2 cpTi_PR2>cpTi_PR3>cpTi_PR4,PMMA_PR1. There was no statistically significant correlation between PBS and RS%, with the exception of EL1_PMMA_PR1. In all groups mixed failure modes were found by SEM/EDX. Although there is evidence of bonding with cpTi, there are important differences among the primer/elastomer combination that may affect the clinical performance of these materials.

Title: Maxillofacial trauma scoring systems.

Citation: Injury, Jul 2016, vol. 47, no. 7, p. 1388-1392

Author(s): Sahni, Vaibhav

Abstract: The changing complexity of maxillofacial fractures in recent years has created a situation where classical systems of classification of maxillofacial injuries fall short of defining trauma particularly that observed with high-velocity collisions where more than one region of the maxillofacial skeleton is affected. Trauma scoring systems designed specifically for the maxillofacial region are aimed to provide a more accurate assessment of the injury, its prognosis, the possible treatment outcomes, economics, length of hospital stay, and triage. The evolution and logic of such systems along with their merits and demerits are discussed. The author also proposes a new system to aid users in quickly and methodically choosing the system best suited to their needs without having to study a plethora of literature available in order to isolate their choice

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Title: The Benefits of Volunteering as an Oral and Maxillofacial Surgery Educator.

Citation: Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Jul 2016, vol. 74, no. 7, p. 1295-1299,

Author(s): Nix, Ned L, Beck, Lynn G, Rodriguez, Tobias E

Abstract: A faculty shortage crisis exists in oral and maxillofacial surgery (OMS) education affecting dental students, OMS residents, and OMS full-time faculty. This report was designed to help nonacademic OMS practitioners better understand the problem and appreciate the potential benefits of volunteering as a part-time faculty member. Volunteer part-time faculty can help bolster the efforts of the faculty leaders (full-time and part-time) by taking on some of the dental student and/or resident educational responsibilities. They can also help free up some of the full-time faculty members' time to allow them to complete the scholarly activities required of full-time academicians. Volunteer part-time faculty can greatly benefit from their involvement in dental education. Exposure to faculty leaders and dental students and residents can be educationally enriching and stimulating for volunteer part-time faculty. Students and residents will benefit from learning the differing approaches to patient management that volunteer part-time faculty can provide. In addition, volunteer part-time faculty can have a scope of practice or practice emphasis that differs from and complements that of the faculty leaders. Finally, residents can also benefit from exposure to private practice management strategies that volunteer part-time faculty share. The present report explores how all parties can benefit from OMS faculty volunteerism.

Title: Pediatric Maxillofacial Trauma: A Review of 156 Patients.

Citation: Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Jul 2016, vol. 74, no. 7, p. 1420.e1,

Author(s): Al Shetawi, Al Haitham, Lim, C Anthoney, Singh, Yash K, Portnof, Jason E,

Abstract: To review the epidemiology and management of facial fractures in a pediatric population. This study was a retrospective review of patients younger than 18 years who presented to a pediatric emergency department during a 5-year period in an urban, academic, level 1 designated trauma center. Of the 156 patients identified, most were boys

(87%) and the mean age was 13.5 years (standard deviation, 4.9 yr; interquartile range, 12 to 17 yr). The most common mechanism of injury was assault (48.1%). Mandibular fractures (40.7%) were most common. Multiple fractures occurred in 26.9% of patients. Concomitant injuries occurred in 73.7% of patients, most commonly concussions (39.1%). Intracranial hemorrhages were associated with panfacial (P = .005), frontal (P = .001), and orbital (P = .04) fractures. Most patients (91.7%) were admitted, and nonoperative repair was undertaken in 57.1%. There was an independent association of surgical intervention with age older than 14 years and with mandibular fractures (P < .01). Assault was the most common mechanism of injury and mandibular fracture was the most commonly encountered. Concomitant nonfacial injuries occurred in most patients. Patients sustaining panfacial, frontal, and orbital fractures should provoke an evaluation for other intracranial injuries. Children older than 14 years and those with mandibular fractures should prompt mobilization of resources for operative repair.

Title: Mechanical Properties and Simulated Aging of Silicone Maxillofacial Elastomers: Advancements in the Past 45 Years.

Citation: Journal of prosthodontics : official journal of the American College of Prosthodontists, Jul 2016, vol. 25, no. 5, p. 418-42

Author(s): Hatamleh, Muhanad M, Polyzois, Gregory L, Nuseir, Amjad, Hatamleh, Khaldoun, Alnazzawi, Ahmad

Abstract: To identify and discuss the findings of publications on mechanical behavior of maxillofacial prosthetic materials published since 1969. Original experimental articles reporting on mechanical properties of maxillofacial prosthetic materials were included. A two-stage search of the literature, electronic and hand search, identified relevant published studies up to May 2015. An extensive electronic search was conducted of databases including PubMed, Embase, Scopus, and Google Scholar. Included primary studies (n = 63) reported on tensile strength, tear strength, and hardness of maxillofacial prosthetic materials at baseline and after aging. The search revealed 63 papers, with more than 28 papers being published in the past 10 years, which shows an increased number of publications when compared to only 6 papers published in the 1970s. The increase is linear with significant correlation (r = 0.85). Such an increase reflects great awareness and continued developments and warrants more research in the field of maxillofacial prosthetic materials properties; however, it is difficult to directly compare results, as studies varied in maxillofacial prosthetic materials tested with various silicone elastomers being heavily investigated, standards followed in preparing test specimens, experimental testing protocols, and parameters used in setting simulated aging conditionings. It is imperative to overcome the existing variability by establishing unified national or international standards/specifications for maxillofacial prosthetic materials. Standardization organizations or bodies, the scientific community, and academia need to be coordinated to achieve this goal. In the meantime and despite all of these theoretically significant alternatives, clinical practice still faces problems with serviceability of maxillofacial prostheses

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Title: Gentamicin-loaded poly(lactic-co-glycolic acid) microparticles for the prevention of maxillofacial and orthopedic implant infections.

Citation: Materials science & engineering. C, Materials for biological applications, Jul 2016, vol. 64, p. 108-116,

Author(s): Flores, Claudia, Degoutin, Stephanie, Chai, Feng, Raoul, Gwenael,

Abstract: Trauma and orthopedic surgery can cause infections as any open surgical procedures. Such complications occur in only1 to 5% of the cases, but the treatment is rather complicated due to bacterial biofilm formation and limited drug access to the site of infection upon systemic administration. An interesting strategy to overcome this type of complications is to prevent bacterial proliferation and biofilm formation via the local and controlled release of antibiotic drugs from the implant itself. Obviously, the incorporation of the drug into the implant should not affect the latter's biological and mechanical properties. In this context, we optimized the preparation process for gentamicin-loaded poly(lactic-co-glycolic acid) (PLGA) microparticles, which can be incorporated in the macropores of calcium phosphate-based bone substitutes. Microparticles were prepared using a double emulsion solvent extraction/evaporation technique. The processing parameters were optimized in order to provide an average microparticle size of about 60µm, allowing for incorporation inside the macropores (100µm) of the hydroxyapatite scaffold. Gentamicin-loaded PLGA microparticles showed a sustained release for 25-30days and a rapid antibacterial activity due to a burst effect, the extent of which was controlled by the initial loading of the microparticles. SEM pictures revealed a highly porous microparticle structure, which can help to reduce the micro environmental pH drop and autocatalytic effects. The biological evaluation showed the cytocompatibility and non-hemolytic property of the microparticles, and the antibacterial activity against Staphylococcus aureus under the given conditions.

Title: Cryogenically salvaged teeth as a potential source for grafting dentoalveolar, periodontal or maxillofacial defects.

Citation: Medical hypotheses, Jul 2016, vol. 92, p. 28-30

Author(s): Touyz, Louis Z G, Afrashtehfar, Kelvin I

Abstract: Bone grafting uses a wide range of materials derived mainly from exogenous sources. Autogenous teeth are often used fresh or fixed with alcohol for later use. Proposed here is a method of using cryogenically preserved autogenous extracted teeth, which could be macerated after thawing. This method avoids the possibility of tissue being denatured by alcohol and preserves intact all calcified structures for optimal bone grafting success.

Title: The Revolutionary Applications of Regenerative Medicine in Maxillofacial Surgery.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. 1118-1119

Author(s): Mortellaro, Carmen

Title: Gardner Syndrome With Unusual Maxillofacial Manifestation.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. 1253-1255

Author(s): Oliveira, Marina Reis, Rodrigues, Willian Caetano, Gabrielli, Mario Francisco Real,

Abstract: Gardner syndrome is a rare autosomal-dominant condition characterized by the presence of intestinal polyposis, multiple osteomas, and tumors of the hard and soft tissues.

This paper describes a patient of Gardner syndrome with unusual maxillofacial manifestation with presence of fibromyxomatous injury in jaw, coronoid hyperplasia, and multiple osteomas diffusely distributed in the craniomaxillofacial skeleton. Imaging examinations have identified craniofacial manifestations and the patient was referred to the gastroenterologist who confirmed the diagnosis of Gardner syndrome. The early diagnosis of this syndrome is important since intestinal polyps have high potential for malignant transformation. It is therefore essential that dentists are familiar with the maxillofacial features of this condition, since they precede the intestinal polyposis and encourage early diagnosis. In addition to classic maxillofacial signs of this syndrome, one must consider that, although it is rare, other injuries may be present such as those described in this clinical patient.

Title: Evaluation of Optic Canal and Surrounding Structures Using Cone Beam Computed Tomography: Considerations for Maxillofacial Surgery.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. 1327-1330

Author(s): Sinanoglu, Alper, Orhan, Kaan, Kursun, Sebnem, Inceoglu, Beste, Oztas, Bengi

Abstract: The optic canal connects the anterior cranial fossa and the orbit and maintains the optic nerve and the ophthalmic artery. Within the extent of the surgical approach of the region, risk of iatrogenic injury of the neural and vascular structures increases. The aim of this retrospective morphometric study is to investigate the radiological anatomy of orbita, optic canal, and its surrounding using cone beam computed tomography (CBCT) scans in a group of Turkish population.Cone beam computed tomography images of a total of 182 patients were evaluated by 2 observers. Anatomical parameters regarding optic canal and orbita were measured for all patients from axial, sagittal, and three-dimensional reconstructed images. To assess intraobserver reliability, the Wilcoxon matched-pairs test was used. Pearson χ test and Student t test were performed for statistical analysis of differences, sex, localization, and measurements ($P < 0.05$).Repeated CBCT evaluation and measurements indicated no significant inter and intra-observer difference were found ($P > 0.05$). The orbita width and height were larger for the males than females ($P < 0.05$). No significant difference was observed for optic canal shape, dimensions of infraorbital foramen (IOF) and supraorbital foramen (SOF), SOF-midline distance, and SOF-IOF distance according to sex and location ($P > 0.05$). Examination CBCT scans revealed that the shape of the optic canal was 70% funnel and 28% Hourglass shape, 2% amorph type round.These results provide detailed knowledge of the anatomical characteristics in the orbital area which may be of assistance for surgeons preoperatively. Cone beam computed tomography scans can be an alternative modality for multislice computed tomography with submillimeter resolution and lower dose in preoperative imaging of the orbit.

Title: Treatment Options in Maxillofacial Fractures.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. e445.,

Author(s): Guerrissi, Jorge Orlando

Abstract: From 2000 to 2010, 720 patients with facial trauma were admitted in Plastic Surgery Service of Argerich Hospital, Buenos Aires, Argentina; 58 of them with panfacial fractures were included in this study. Height velocity impact is the principal etiology, and

most concomitant extrafacial injuries are neurocranium and cervical spine. Common affected areas were orbits, nose, and malar-zygoma. The timing of the treatment was airway evaluation, control of bleeding and consciousness, treatment of associated injuries, and finally facial reconstruction. The applications of craniofacial surgical techniques complete facial treatment in only operatory time by means of standard approaches like coronal, subciliar palpebral, upper and lower vestibular. The treatment was exploration to open sky; reduction and fijation with titanium plates; replacement of comminuted bones with bone autografts harvested iliac crest, calvary, and costal bones. The results were classificated acceptables in 48 (85%) and not acceptables in 9 (15%) according to successful reconstruction of the both form and armony facial, persistent esthetic and functional sequels, and postoperative complications. Postoperative complications were detected in 18 patients. According to most authors the use of internal rigid fixation and bone autograf permits obtaining the best aesthetic and functional results decreasing complications and sequels. The recuperation of tridimensional aspect of the face and aesthetic and functional pretrauma state must be the goal standard.

Title: Antimicrobial activity of conventional and plant-extract disinfectant solutions on microbial biofilms on a maxillofacial polymer surface.

Citation: The Journal of prosthetic dentistry, Jul 2016, vol. 116, no. 1, p. 136-143

Author(s): Guiotti, Aimée Maria, Cunha, Bruno Guandalini, Paulini, Marcela Borghi, Goiato,

Abstract: Dentists often note problems with infection in patients with maxillofacial prostheses. Conventional disinfection protocols are not always effective and may alter the properties of the polymer used in the prosthesis. Thus, the search for improved disinfection methods is important. The purpose of this in vitro study was to evaluate and compare the antimicrobial activity of conventional disinfectant solutions (water and neutral soap and 4% chlorhexidine) and plant extracts (Cymbopogon nardus and Hydrastis canadensis) on specimens of maxillofacial silicone contaminated with Candida albicans and Staphylococcus aureus biofilms. Seventy-two silicone (MDX4-4210) specimens were fabricated (5×2 mm) and sterilized. Thirty-six were contaminated with C albicans (10(6) cells/mL) and 36 with S aureus (10(8) cells/mL) to evaluate the antimicrobial activity of the cleaning protocols. After incubation (37°C/72 hours), the specimens were divided into 5 groups: not disinfected (positive control), soaking in saline solution for 10 minutes, soaking in 4% chlorhexidine for 10 minutes, soaking in C nardus for 10 minutes, soaking in H canadensis for 10 minutes, and washing by hand with water and neutral soap for 30 seconds. The viability of cells was evaluated by XTT (2,3-bis-(2-methoxy-4-nitro-5-sulfophenyl)-2H-tetrazolium-5-carboxanilide) assay and by scanning electron microscope analysis. The results were analyzed by ANOVA and the Tukey HSD test (α=.05). All disinfection solutions provided a statistically significant reduction in biofilm viability compared with the control group for both microorganisms (P<.05). Washing with water and neutral soap was significantly more effective in reducing biofilm viability than immersion in the disinfection solutions, with persistence of viable microorganisms between 1.05% for C albicans and 0.62% for S aureus after this cleaning protocol. Photomicrographs revealed that 4% chlorhexidine altered the surface of the polymer. Within the limitations of this in vitro study, it was concluded that the cleaning protocols with different disinfectant solutions produced a significant reduction in the viability of C albicans and S aureus biofilms on the silicone polymer. Washing with

water and neutral soap was the most effective protocol against both microorganisms.

Title: Septorhinoplasty in the Pediatric Patient.

Citation: Facial plastic surgery clinics of North America, Aug 2016, vol. 24, no. 3, p. 245-253

Author(s): Bhuskute, Aditi, Sumiyoshi, Mika, Senders, Craig

Abstract: Pediatric septorhinoplasty has been an area of controversy because early surgical intervention can prevent normal growth. There are certain conditions where early correction of the nose is indicated, such as in cleft lip nasal deformities, severe traumatic deformities, and congenital nasal lesions. Animal and clinical studies have been helpful in elucidating certain areas of the nose that are potential growth zones that should be left undisturbed when performing nasal surgeries on pediatric patients. We discuss the timing, indications, and surgical technique in pediatric septorhinoplasty.

Title: Cephalometrics in Stickler syndrome: Objectification of the typical facial appearance.

Citation: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Jul 2016, vol. 44, no. 7, p. 848-853

Author(s): Acke, Frederic R, Dhooge, Ingeborg J, Malfait, Fransiska, De Leenheer, Els M R,

Abstract: Stickler syndrome is a connective tissue disorder characterized by orofacial, ocular, skeletal and auditory symptoms. The orofacial phenotype mainly consists of midfacial hypoplasia, micrognathia and cleft palate. Large phenotypic variability is evident though. Few studies have tried to substantiate the typical facial appearance in Stickler syndrome patients. Molecularly confirmed Stickler patients were invited to undergo cephalometric analysis based on a lateral radiograph in standardized conditions. Angular and linear measurements were performed according to Steiner's and Sassouni's analysis and compared with age- and gender-matched reference values. Thirteen patients aged 10-62y were included, twelve of whom had type 1 Stickler syndrome (COL2A1 mutation) and one type 2 Stickler syndrome (COL11A1 mutation). The position of maxilla and mandible relative to the cranial base was not significantly different from the reference population (S-N-A: p = 0.73, S-N-B: p = 0.43). The mandibular plane and y-axis showed an elevated angle with the cranial base in most patients, although not significant for the total group (S-N to Go-Me: p = 0.20, S-N to S-Gn: p = 0.18). Dental analysis was normal, except for a higher overjet value (p = 0.006) and a higher angle between occlusal plane and Frankfort plane (p = 0.022). Cephalometric analysis was not able to thoroughly prove the abnormal facial appearance in Stickler syndrome. The majority of patients had normal dentofacial proportions. The most frequently observed anomaly in our series is a rather short and posteriorly rotated mandible, but clinical variability is high.

Cleft lip and palate

Title: Palatoplasty decreases the re-insertion rate of middle ear ventilation tube in cleft palate children - A population-based birth cohort study.

Citation: Acta oto-laryngologica, Aug 2016, vol. 136, no. 8, p. 768-774

Author(s): Huang, Chii-Yuan, Wu, Chuan-Song, Tang, Chao-Hsiun, Wang, Mao-Che, Kuo,

Abstract: Palatoplasty can significantly decrease their middle ear re-intubation rate with a relatively lower hazard ratio compared to children who underwent VTI only. In children with cleft palate, questions remain about the overall effect of ventilation tube insertion (VTI) and palatoplasty for their OME. A large-scale study might offer more evidence for the roles of palatal surgery. This was a retrospective birth cohort study based upon a national database. We analyzed children born between 1999-2004 and diagnosed as cleft palate and/or lips. These children, according to their surgeries, were separated into two groups: (1) VTI only, and (2) VTI and palatoplasty. Kaplan-Meier analysis and log-rank test were used to calculate their cumulative tube re-insertion rates. Their hazard ratios of tube re-insertion were also analyzed. In total, 1205 cleft children were collected, with 151 in the VTI only group and 1054 in the VTI + palatoplasty group. Ventilation tube re-insertion rates were significantly lower in the VTI + palatoplasty group (p = 0.002). The cumulative re-insertion rates also showed a significant difference (p = 0.001). When compared to the VTI only group, the adjusted hazard ratio was 0.528 in the VTI + palatoplasty group (p = 0.001).

Title: Surgical Technique for Whistler Deformity Repair in Bilateral Cleft Lip Patients: An Anthropometric Study.

Citation: Annals of plastic surgery, Aug 2016, vol. 77, no. 2, p. 183-189

Author(s): Rossell-Perry, Percy, Gavino-Gutierrez, Arquímedes M

Abstract: The purpose of this study was to evaluate the surgical outcome of secondary bilateral cleft lips after using a surgical technique for whistler deformity repair. A prospective cohort study of one surgeon's outcome of 38 consecutive performed bilateral whistler deformity repairs was conducted. Data from the Outreach Surgical Center Program, Lima, Peru, were used. Thirty-eight patients with lip deformity related to unsatisfactory bilateral cleft lip repair were operated on using the proposed surgical technique since 2008. All these patients met the study criterion of having anthropometric measurements performed at least 1 year postoperatively. Measurement of lip height, lip width, vermilion height, cupid bow, and nasal base width was performed at the right and left side of the lip, preoperatively and at least 1 year postoperatively. The matched pair t test analyses were performed when the assumptions required were met. When the normality assumption was not met, the Wilcoxon signed rank test, a nonparametric test was used to assess the statistical significance of differences between the studied sample and control group. The study found statistically significant differences between the preoperatory and control groups in most of the lip measurements. In addition, we have found statistically significant differences between the preoperatory and postoperatory groups in most of the anthropometric lip measurements, in favor of the second group, after lip repair using the proposed technique and measured at least 1 year postoperatively. The findings suggest that the proposed technique is a good alternative to address the whistler deformity related to the bilateral cleft lip primary repair.

Title: Resiliency and socioemotional functioning in youth receiving surgery for orofacial anomalies.

Citation: Community dentistry and oral epidemiology, Aug 2016, vol. 44, no. 4, p. 371-380

Author(s): Ruff, Ryan Richard, Sischo, Lacey, Broder, Hillary

Abstract: Restorative interventions for cleft lip and palate involve annual evaluations, adjunct treatment, and multiple surgeries. The purpose of this study was to investigate the longitudinal impact of cleft surgery on psychosocial functioning among youth with cleft. Data were derived from a 5-year, multicenter, prospective longitudinal study of children with cleft (N = 1196). Children completed psychological inventories for self-concept, anxiety, depression, mastery, and relatedness. Multilevel mixed-effects models were used to analyze the effects of craniofacial surgery for cleft on psychosocial outcomes over time. There were 1196 participants at baseline, of whom 258 (27.5%) received a surgical intervention prior to their 1st follow-up visit. Approximately 78% of participants had cleft lip and palate, and 22% had cleft palate only. Surgery receipt was significantly associated with lower relatedness (β = -1.48, 95% CI = -2.91, -0.05) and mastery (β = -1.32, 95% CI = -2.49, -0.15) scores, although overall scores appeared to increase over time. Surgery was not related to anxiety (β = -0.15, 95% CI = -1.08, 0.79), depression (β = 0.18, 95% CI = -0.65, 1.01), and self-concept (β = -0.84, 95% CI = -1.83, 0.15). The treatment-time interaction was not significant. Significant differences in psychosocial functioning were found across sex, race/ethnicity, and age groups. Surgery may have negative short-term impacts on psychosocial functioning, although effects may diminish over time. Given the limited postsurgical follow-up period, long-term change in psychological well-being and the moderating effects of surgery may not be fully realized. Further follow-up of children with cleft through adulthood to explore developmental trajectories of psychosocial functioning in more detail is recommended

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Title: New biomaterials versus traditional techniques: advances in cleft palate reconstruction.

Citation: Current opinion in otolaryngology & head and neck surgery, Aug 2016, vol. 24, no. 4, p. 330-335

Author(s): Lakhani, Raam S

Abstract: Cleft lip and palate still remains one of the most common congenital anomalies, and consequently surgical correction of these anomalies is still commonplace. Despite numerous existing surgical techniques having good outcomes, it is still recognized that the morbidity of certain surgical procedures and success rates regarding outcomes can be improved. The purpose of this review is to evaluate new literature and techniques compared with the time tested procedures that are commonly used. As technology continues to advance, the understanding of details regarding biochemical pathways responsible for the development of cleft defects and also the efficacy of biomaterials that can be used in their correction are being discovered and better understood. Many studies have been conducted in both animal and human study participants that further the understanding of these questions. The efficacy and benefit of newly devised biomaterials seems to indicate that these biomaterials are a viable adjunct and often an alternative in the treatment of cleft palate patients. In this review of recent literature, the discussion begins with a review of the more traditional and widely accepted iliac crest bone grafting and then evolves into a discussion of several animal and human studies to delineate the progress being made in this field. The literature exploring the details regarding biochemical pathways and cellular mediators that are involved in cleft formation, as well as biomaterials used in

surgical repair are evaluated. The findings in the literature suggest that there is a bright future in better understanding the cause of cleft formation on a molecular level and associated attempts that can be made in altering some of these factors along with discovering new biomaterials that can be a useful adjunct to existing techniques.

Title: Controversies in the Management of Patients with Cleft Lip and Palate.

Citation: Facial plastic surgery clinics of North America, Aug 2016, vol. 24, no. 3, p. 255-264,

Author(s): Rodman, Regina E, Tatum, Sherard

Abstract: Cleft lip and palate is one of the most common congenital anomalies. For many years, surgeons have been attempting to reduce the severity of the deformity before the surgical repair to achieve a better outcome. The nasoalveolar molding technique uses acrylic nasal stents attached to the vestibular shield of an oral molding plate to mold the nasal alar cartilages into a more normal form and position during the presurgical period. Proponents of nasoalveolar molding claim several benefits, including improved aesthetic outcome, reduced overall costs, and a psychosocial benefit to the family. Research on these outcomes is not conclusive.

Title: Evolution of my philosophy in the treatment of unilateral cleft lip and palate.

Citation: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Aug 2016, vol. 44, no. 8, p. 901-911,

Author(s): Brusati, Roberto

Abstract: At the end of 50-year-long clinical activity, the evolution of my approach to the treatment of unilateral cleft of the lip and palate is discussed. I had several teachers in this field (Rusconi, Reherman, Perko, Delaire, Talmant, Sommerlad and others) and I introduced in my approach what I considered to be improvements from all of them. My current protocol is related to the anatomy of the cleft: for wide clefts a two-stage protocol is applied (1° step: soft palate and lip and nose repair; 2° step: hard palate repair with gingivoalveoloplasty); for narrow cleft (less than 1 cm at the posterior border of hard palate) an "all in one" protocol is performed with or without gingivoalveoloplasty (in accordance to the presence or absence of contact between the stumps at alveolar level). The most important details regarding surgery of the lip and palate are discussed. Robust data collection on speech and skeletal growth is still needed to determine whether the "all in one" approach can be validated as the treatment of choice for unilateral complete lip and palate cleft in selected cases.

Title: Use of early hard palate closure using a vomer flap in cleft lip and palate patients.

Citation: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Aug 2016, vol. 44, no. 8, p. 912-918

Author(s): Smarius, Bram J A, Breugem, Corstiaan C

Abstract: The aim of the present study was to determine the influence of the vomer flap during cleft palate closure. A retrospective review was performed of all consecutive unilateral/bilateral complete cleft lip and palate (Veau III en IV) children who were treated

by a simultaneous lip and hard palate closure using a vomer flap. Data were collected for sex, date of birth, syndrome, adoption, cleft palate type, type of repair, date of cleft repair, cleft width, lateral incisions, fistula and location of fistula. Ninety-one children (M = 62, F 29) were operated. Mean age at time of lip closure and vomer flap was 5.8 months (range 2.9 months to 49.2 months, SD 7.1) and the mean age at palate closure was 13.6 months (range 6.3 months to 79.9 months, SD 10.8). The mean cleft width at first assessment was 13.0 mm (range 7-22 mm) compared to 8.8 mm (range 4-15 mm) at second assessment (mean difference 4.6 mm, 95% CI 3.93-5.35, $p < 0.01$). One patient developed a fistula (1.1%) and required secondary surgery for closure. The vomer flap leads to a substantial decrease in cleft width, subsequently leading to a low fistula incidence (1.1%).

Title: Trans-oral endoscopic partial adenoidectomy does not worsen the speech after cleft palate repair.

Citation: Brazilian journal of otorhinolaryngology, Jul 2016, vol. 82, no. 4, p. 422-426

Author(s): Abdel-Aziz, Mosaad, Khalifa, Badawy, Shawky, Ahmed, Rashed, Mohammed, Naguib, Nader, Abdel-Hameed, Asmaa

Abstract: Adenoid hypertrophy may play a role in velopharyngeal closure especially in patients with palatal abnormality; adenoidectomy may lead to velopharyngeal insufficiency and hyper nasal speech. Patients with cleft palate even after repair should not undergo adenoidectomy unless absolutely needed, and in such situations, conservative or partial adenoidectomy is performed to avoid the occurrence of velopharyngeal insufficiency. Trans-oral endoscopic adenoidectomy enables the surgeon to inspect the velopharyngeal valve during the procedure. The aim of this study was to assess the effect of transoral endoscopic partial adenoidectomy on the speech of children with repaired cleft palate. Twenty children with repaired cleft palate underwent transoral endoscopic partial adenoidectomy to relieve their airway obstruction. The procedure was completely visualized with the use of a 70° 4mm nasal endoscope; the upper part of the adenoid was removed using adenoid curette and St. Claire Thompson forceps, while the lower part was retained to maintain the velopharyngeal competence. Preoperative and postoperative evaluation of speech was performed, subjectively by auditory perceptual assessment, and objectively by nasometric assessment. Speech was not adversely affected after surgery. The difference between preoperative and postoperative auditory perceptual assessment and nasalance scores for nasal and oral sentences was insignificant ($p=0.231$, 0.442, 0.118 respectively). Transoral endoscopic partial adenoidectomy is a safe method; it does not worsen the speech of repaired cleft palate patients. It enables the surgeon to strictly inspect the velopharyngeal valve during the procedure with better determination of the adenoidal part that may contribute in velopharyngeal closure.

Title: A modified presurgical orthopedic (nasoalveolar molding) device in the treatment of unilateral cleft lip and palate.

Citation: European journal of dentistry, Jul 2016, vol. 10, no. 3, p. 435-438,

Author(s): Subramanian, Chitravelu Siva, Prasad, N K K Koteswara, Chitharanjan, Arun B

Abstract: Nasoalveolar molding (NAM) can be done effectively to reshape the nasal cartilage and mold the maxillary dentoalveolar arch before surgical cleft lip repair and primary

rhinoplasty. Presurgical NAM helps as an adjunct procedure to enhance the esthetic and functional outcome of the surgical procedures. We have developed a modified NAM device to suit to the needs of the patients coming from distant places for the treatment. This device helps in reducing the number of frequent visits the patient needs to take to the craniofacial center. The purpose of this presentation is to report this treatment technique and discuss its application.

Title: Prenatal diagnosis of cleft lip/palate: The surface rendered oro-palatal (SROP) view of the fetal lips and palate, a tool to improve information-sharing within the orofacial team and with the parents.

Citation: Journal of cranio-maxillo-facial surgery : official publication of the European Association for Cranio-Maxillo-Facial Surgery, Jul 2016, vol. 44, no. 7, p. 835-842

Author(s): Levaillant, Jean-Marc, Nicot, Romain, Benouaiche, Laurence, Couly, Gérard,

Abstract: The ultrasonographic surface rendered oro-palatal (SROP) view is a 3D reconstructed view of the fetal perioral region, which combines ultrasound insonation in a trans oral, upward directed axial direction and the surface rendered mode. It allows the simultaneous visualization on a single scan of the superior lip, alveolar ridge and secondary palate. It corresponds prenatally to the submental intra oral photography of the palate of neonates. The aim of the study was to demonstrate the benefice of using the SROP view in the management of cleft lip with or without cleft palate, uni- or bi-lateral, diagnosed prenatally (22-28 gestational weeks). The SROP view allowed the representation on a single view of the characteristics of the defect useful to the different members of the orofacial team to exactly evaluate the difformity and to plan the ulterior therapeutic steps (e.g. side, extension of the cleft to the secondary palate, tooth organization). Also, being easier to read by lay people thanks to the use of a surface rendered representation rather than the usual multiplanar reconstructions in the three traditional orthogonal planes, the SROP view makes it easier to bring exact information to the parents about the malformation and its consequences

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Title: Clinical and 3-Dimensional Analyses of Nasal Forms After Secondary Correction of Cleft Lip-Nose Deformities Using Extended Spreader Cartilage Graft With a Cross-Lap Joint Technique.

Citation: Journal of oral and maxillofacial surgery : official journal of the American Association of Oral and Maxillofacial Surgeons, Jul 2016, vol. 74, no. 7, p. 1465.e1,

Author(s): Nakamura, Norifumi, Okawachi, Takako, Matsumoto, Kouzou, Kimura, Namiko,

Abstract: A surgical strategy for definitive cleft lip-nasal correction that stably provides symmetric and natural nasal forms has not been established to date. The purpose of this study was to describe our surgical techniques and 3-dimensional (3D) assessment results after the definitive correction of cleft lip-nose deformity using an extended spreader cartilage graft with a cross-lap joint technique to achieve a rigid strut for lower lateral cartilage repositioning to obtain a desirable nasal tip projection. This study enrolled 14 patients with unilateral cleft lip (UCL) with or without cleft palate and 8 patients with bilateral cleft lip (BCL) with or without cleft palate who underwent definitive nose correction and were followed for 1 to 3 years. All patients were treated by open rhinoplasty,

repositioning of the lower lateral cartilage, use of an extended spreader cartilage graft with a cross-lap joint technique for nasal tip support, and medial-upward advancement of nasolabial components with vestibular expansion by a free mucosal graft. For the BCL nose, pedicle flaps from rim skin were used for columella lengthening. Preoperative and postoperative nasal forms were 3-dimensionally analyzed by use of 3D images serially obtained in 12 patients. The postoperative nasal forms were satisfactorily improved in all patients, without any serious postoperative complications. Preoperative and postoperative 3D analyses showed a significantly projected nasal tip in the postoperative noses of patients in both the UCL group and the BCL group ($P < .01$ and $P < .05$, respectively) and a sharper nasal tip angle in the BCL group ($P < .05$). Lateral deviation of the nasal tip was significantly improved in the center of the face in patients in the UCL group ($P < .01$). The results of this study suggest that the extended spreader cartilage graft using the cross-lap joint graft technique is useful to provide a desirable projection of the nasal tip in the center of the face on definitive correction of both UCL and BCL nose deformities.

Title: Use of a purified collagen membrane to aid closure of palatal fistulae.

Citation: Journal of plastic, reconstructive & aesthetic surgery : JPRAS, Jul 2016, vol. 69, no. 7, p. 1003-1007

Author(s): Atherton, Duncan D, Boorman, John G

Abstract: Fistula formation following closure of palatal clefts remains a difficult clinical complication. A significant recurrence rate has also been reported following attempted closure. We present our results of fistula closure augmented with Bio-Gide(®), a purified porcine collagen membrane designed to promote guided tissue regeneration. We reviewed the records of 263 patients operated between 1993 and 2011 for closure of palatal fistula. The patients selected comprised 61 who underwent fistula closure augmented with Bio-Gide and 202 with other techniques in the absence of Bio-Gide. We reviewed the age at surgery, sex, location of fistula, cleft type and outcome. Operation success was defined as an asymptomatic patient along with visible confirmation of closure of the fistula. The overall fistula closure rate was 75% in the Bio-Gide group and 63% in the non-Bio-Gide group ($p = 0.070$) and 86% versus 61% in the unilateral cleft palate patients ($p = 0.027$). Bio-Gide has improved the success rate in fistula closure in this study. Using this technique, fistula closure can be performed as a day case procedure and does not need to transgress any original suture lines; an additional advantage is that this procedure does not require harvesting of any autologous tissue to augment the repair.

Title: Successful surgery for refractory seizures associated with bilateral schizencephaly: two case reports and literature review.

Citation: Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology, Jul 2016, vol. 37, no. 7, p. 1079-1088

Author(s): Zhang, Junmei, Yang, Zhiquan, Yang, Zhuanyi, He, Xinghui, Hou, Yonghong,

Abstract: Schizencephaly is a rare malformation of cortical development resulting from cell migration defects that occur unilaterally or bilaterally. The type of the schizencephalic cleft can be open lip or closed lip. Patients suffering from refractory seizures secondary to schizencephaly should be considered for surgical treatment. In this paper, we

retrospectively analyzed two patients with confirmed schizencephaly and intractable seizures. The evaluation methods included a medical history assessment, a neurological examination and magnetic resonance imaging (MRI). Continuous intracranial video-electroencephalogram (vEEG) monitoring with surface electrodes and deep electrodes was evaluated to confirm the epileptogenic zones associated with the schizencephalic lesions. Cortical electrical stimulation was performed to evaluate the neurophysiology of the relevant brain regions. Epileptic focus resection was performed close to the schizencephalic cleft according to the results of intracranial EEG and stimulation while preserving neurological functions. MRI revealed bilateral open lip schizencephaly in one patient and closed lip schizencephaly in the other patient. The epileptogenic zones were localized close to the schizencephalic clefts. The seizure outcome was Engel's class Ia in both patients at 1-year follow-up. No significant neurological deficits were found, and their activities of daily life were significantly improved. We conclude that abnormal cortex near the schizencephalic clefts may display an extrinsic epileptogenicity. Accurate localization of the epileptogenic zones using intracranial EEG and electrical stimulation can lead to a seizure-free outcome in patients with refractory epilepsy associated with schizencephaly.

Title: The Essential Anatomical Subunit Approximation Unilateral Cleft Lip Repair.

Citation: Plastic and reconstructive surgery, Jul 2016, vol. 138, no. 1, p. 91e

Author(s): Chong, David K, Swanson, Jordan W

Abstract: The anatomical subunit approximation cleft lip repair advantageously achieves a balanced lip contour, with the line of repair hidden along seams of aesthetic subunits. Dr. David Fisher's original description of the repair reflects the considerable thought that went into the evolution of his design. As his technique has gained acceptance in the intervening 10 years, the authors note several key principles embodied in it that represent a shift in the cleft lip repair paradigm. The authors believe understanding these principles is important to mastery of the anatomical subunit technique, and facilitate its teaching. First, design a plan that adheres to anatomical subunits and perform measurements precisely. Second, identify and adequately release each cleft tissue layer from the lip and nose to enable restoration of balance. Third, drive surgical approximation through inset of the lateral muscle into the superiorly backcut medial orbicularis muscle, followed by skin closure with inferior triangle interposition above the white roll. In this article, the authors present essential components of the technique, and identify several principles that enable its successful execution.

Title: Fistula Rate after primary palatal repair with intravelarveloplasty: a retrospective three-year audit of six units (NorCleft) in the UK.

Citation: The British journal of oral & maxillofacial surgery, Jul 2016, vol. 54, no. 6, p. 634-637

Author(s): Moar, Kanwalraj K, Sweet, Christopher, Beale, Victoria

Abstract: Our aim was to evaluate the rate of fistulation after one-stage palatal repair by intravelarveloplasty in the NorCleft Cleft Services (Scotland and Northern England), this being a primary outcome measure after repair of a cleft palate. We designed a retrospective, three-year clinical audit of six cleft units in the UK, and retrospectively reviewed the casenotes of babies with cleft palate born in 2006-2008 who were treated by

intravelarveloplasty. We recorded type of cleft and procedure, including lateral relieving incisions, and our main outcome measure was the presence of a fistula behind the incisive foramen at 3 years of age, or a history of repair of a fistula. A total of 743 patients had cleft palates, but 69 (9%) were excluded (because they had not been operated on, or had not been reviewed by the age of 3 years, or their records were unavailable). A total of 626 patients had had a Sommerlad intravelarveloplasty repair, and 48 had had mixed procedures including Veau-Wardill-Kilner, Furlow, or two-stage repairs, and were not studied further. Eighty-seven (14%) who had had intravelarvoloplasty had a fistula behind the incisive foramen. There was no significant difference in age at time of repair between those who developed a fistula and those who did not (p=0.65). The fistula rate of 14% is comparable with that of Sommerlad. The fistula rate was higher in patients who had had lateral releasing incisions (58/275, 21%) or who had bilateral cleft palate (16/63, 25%). To our knowledge this is the largest review of the fistula rate in patients who had primary palatal repair using the intravelarveloplasty technique in the UK, and shows significant correlation between lateral releasing incisions and formation of a fistula, except in the unilateral cleft lip and palate group (p=0.12).

Title: The Burden of Care for Children With Unilateral Cleft Lip: A Systematic Review of Revision Surgery.

Citation: The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association, Jul 2016, vol. 53, no. 4, p. 84-94

Author(s): Sitzman, Thomas J, Coyne, Sarah M, Britto, Maria T

Abstract: To identify the average rate of revision surgery following cleft lip repair. PubMed, CINAHL, and SCOPUS were searched from database inception through March 2013 using the search terms cleft lip and surgery. Two investigators independently screened all abstracts and determined eligibility from review of full manuscripts using prespecified inclusion and exclusion criteria. Strengths and limitation of the studies were assessed, followed by qualitative synthesis. The I(2) test of homogeneity was performed to determine if meta-analysis was appropriate. The search identified 3034 articles. Of those, 45 met the inclusion criteria. Studies were primarily case series and retrospective cohort studies, with only one randomized controlled trial. One-third of studies (n = 15) did not describe how the study sample was selected. Follow-up duration was not reported in one-fourth of studies (n = 11). Nasolabial aesthetics were reported in 44% of studies (n = 20). The incidence of revision surgery ranged from 0% to 100%. Meta-analysis was precluded because of study heterogeneity (I(2) = 97%). The average incidence of cleft lip revision surgery cannot be estimated from the published literature, due to significant heterogeneity among existing reports and limited study quality. To provide valid information about the burden of care for unilateral cleft lip, a population-based or multicenter longitudinal cohort study is necessary; this study should measure the number of surgical procedures and the patient's aesthetic outcomes.

Title: Optimizing Surgical Treatment of Internationally Adopted Children With Cleft Lip and/or Palate: Understanding the Family Experience.

Citation: The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association, Jul 2016, vol. 53, no. 4, p. 444-452

Author(s): Shipe, Maren E, Edwards, Todd C, Evans, Kelly N, Schook, Carolyn C

Abstract: To understand the experience of families with children undergoing cleft surgery following adoption from a country outside the United States. To identify factors, including the timing of surgery, that influence family function throughout the surgical experience. Semistructured qualitative interviews were conducted with parents of internationally adopted children postrepair of cleft lip and/or cleft palate and coded by a multidisciplinary study team. Mixed methods were used to contextualize themes derived from the parent interviews. Twenty parent interviews were conducted, and four core themes were identified: (1) parental anxieties prior to surgery, (2) considerations for the timing of surgery, (3) impact of the surgical experience on the child and family, and (4) modifiable sociocontextual factors. Parents considered a strong child bond with at least one parent and the ability of the child to communicate basic needs to be important before undergoing surgery. In retrospect, parents generally felt that the surgical experience did not have a negative impact on their child or their families and that the surgical experience may have even facilitated bonding and attachment with their child. Acceleration of family bonding was expressed more often by parents of children who were adopted at older than 2 years. In our study, parents reported that cleft surgery soon after international adoption did not appear to impair child bonding or adjustment. Specific family and provider factors that could optimize the experience for families were identified.

Title: Asymmetric Anterior Distraction for Transversely Distorted Maxilla and Midfacial Anteroposterior Deficiency in a Patient With Cleft Lip/Palate: Two-Stage Surgical Approach.

Citation: The Cleft palate-craniofacial journal : official publication of the American Cleft Palate-Craniofacial Association, Jul 2016, vol. 53, no. 4, p. 491-498

Author(s): Hirata, Kae, Tanikawa, Chihiro, Aikawa, Tomonao, Ishihama, Kohji,

Abstract: The present report describes a male patient with a unilateral cleft lip and palate who presented with midfacial anteroposterior and transverse deficiency. Correction involved a two-stage surgical-orthodontic approach: asymmetric anterior distraction of the segmented maxilla followed by two-jaw surgery (LeFort I and bilateral sagittal splitting ramus osteotomies). The present case demonstrates that the asymmetric elongation of the maxilla with anterior distraction is an effective way to correct a transversely distorted alveolar form and midfacial anteroposterior deficiency. Furthermore, successful tooth movement was demonstrated in the new bone created by distraction.

Title: The Management of Iatrogenic Obstructive Sleep Apnoea Syndrome Following Bimaxillary Surgery in a Patient with Cleft Lip and Palate.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. 1286-1288

Author(s): Gerbino, Giovanni, Gervasio, Fernando Carmine, Blythe, John, Bianchi,

Abstract: A 26-year-old man presented with a 6-year history of severe obstructive sleep apnoea syndrome followed a bimaxillary osteotomy procedure for a class III skeletal pattern. The patient was born with a unilateral cleft lip and palate and underwent primary lip and palate repair and later a pharyngeal flap for severe velopharyngeal insufficiency. Surgical management of obstructive sleep apnoea syndrome with conventional osteotomy,

in cleft lip and palate patients, is a difficult problem. Distraction osteogenesis may provide a safer alternative. The authors describe and discuss the indications and the technical challenge of a multistage treatment protocol with distraction osteogenesis.

Title: Cleft Palate Repair Using a Double Opposing Z-Plasty.

Citation: The Journal of craniofacial surgery, Jul 2016, vol. 27, no. 5, p. e444.,

Author(s): Moores, Craig, Shah, Ajul, Steinbacher, Derek M

Abstract: Cleft palate is a common congenital defect with several described surgical repairs. The most successful treatment modality remains a controversy. The goals of repair focus on achievement of normal speech and optimizing velopharyngeal function while minimizing both fistula formation and facial growth restriction. In this video, the authors demonstrate use of the double opposing Z-plasty technique in the repair of a Veau II type cleft palate. The video demonstrates the marking, incisions, dissection, and repair of the cleft. It also examines the use of von Langenbeck-type relaxing incisions and demonstrates a specific approach to the repair of this particular cleft. The authors believe that the Furlow double opposing Z-plasty with the von Langenbeck relaxing incision can provide the best postoperative outcome by combining the benefits of each individual operation. The Z-plasty technique works to correct the aberrant muscle of the soft palate while increasing the length of the palate. The authors believe that this results in better velopharyngeal function

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Title: Use of autologous platelet-rich plasma in complete cleft palate repair.

Citation: The Laryngoscope, Jul 2016, vol. 126, no. 7, p. 1524-1528

Author(s): El-Anwar, Mohammad Waheed, Nofal, Ahmed Abdel Fattah, Khalifa, Mohamed,

Abstract: Evaluate the effect of topical application of autologous platelet-rich plasma (PRP) in primary repair of complete cleft palate and then compare the result with another group of patients using the same surgical technique, without application of PRP with regard to the incidence of oronasal fistula, velopharyngeal closure, and grade of nasality. Case control study. This study was carried on 44 children with complete cleft palate with age range from 12 to 23 months. The children were divided into two age- and gender-matched groups: All children were subjected to the same technique of V-Y pushback repair of the complete cleft palate. In group A (22 children), the PRP prepared from the patient was topically applied between the nasal and oral mucosa layer during palatoplasty, whereas in group B (22 children) the PRP was not applied. All cases were recovered smoothly without problems. In group A, no oronasal fistula was reported, whereas in group B three patients (13.6%) had postoperative fistulae and two patients (9.1%) needed revision palatoplasty. At 6 months postoperative assessment, group A (with PRP application) showed significantly better grade of nasality (P = 0.024) and better endoscopic velopharyngeal closure (P = 0.016) than group B. Usage of autologous PRP in complete cleft palate repair is simple; effective; can decrease the incidence of oronasal fistula; and also significantly improves the grade of nasality and velopharyngeal closure, which decreases the need of further surgical intervention in cleft palate patients. 3b. Laryngoscope, 126:1524-1528, 2016

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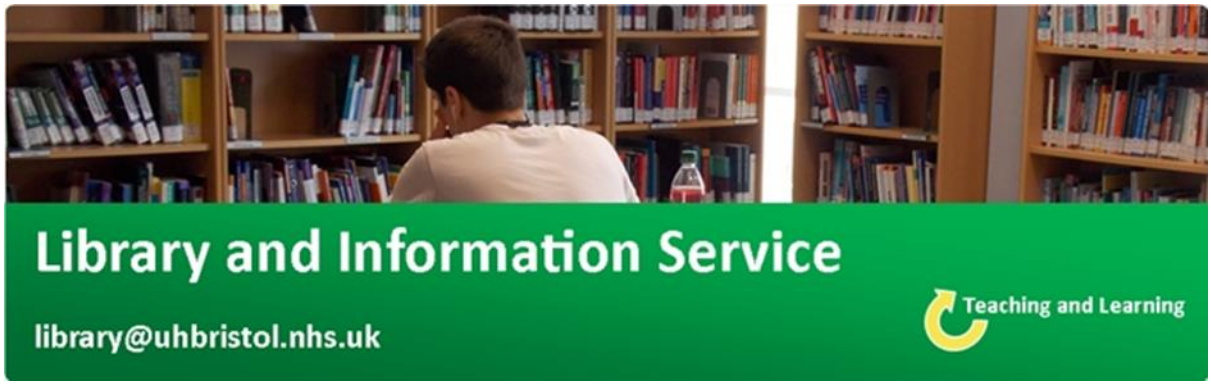
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