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Body osteotomy for management of de mandibular excess. A case report

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The purpose of this study is to describe the surgical procedure in correcting Class III patients with long face problems. Class III malocclusions are common clinical problems. A mandibular body osteotomy should be considered for correction of mandibular excess. Occlusion of teeth posterior to the osteotomy site should be carefully evaluated in the planning stages. Radiographic examination of the potential osteotomy sites is very important to proper planning and execution of the surgery. This study present a young male of 21 years old who has a dentofacial deformity Class III, with active unilateral condylar hyperplasia. This study evaluates the functional and cosmetic results of mandibular body osteotomy for correction of mandibular excess. The patient was treated 3-D and the evaluation included clinical, radiographs and photographs analysis, pre- and postoperative. The body osteotomy is accomplished by a single-stage operation. The proximal and distal segments healed by osseous union with 6 weeks with intermaxillary fixation. The surgical procedure makes it possible to obtain an optimal esthetic and functional result in cases of Class III long face patients. This approach represents a useful option for the treatment of these deformities.

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Mandibular basal osteotomy (wing genioplasty). A case report

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Genioplasty is a complementary procedure to the treatment of facial deformities with great versatility and esthetic outcome. It is commonly performed in patients undergoing maxillary osteotomies to improve esthetic results. Currently, the most frequently used technique is the horizontal osteotomy of the symphysis. Restoration of the symmetrical facial contour is challenging, particularly in moderate to severe deformities, because of the necessary overcorrection of the bony deformity relative to the normal side. The original genioplasty introduced by Obwegeser, was modified by Sand-

ner and the term "wing" was coined by Triaca. Wing genioplasty was introduced for the correction of deficiency, excess or asymmetry of mandibular bone. This study evaluates the functional and cosmetic results of mandibular inferior border osteotomy. The patient was treated 3-D and the evaluation included clinical, radiographs and photographs analysis, pre- and postoperative. The patients showed excellent functional and cosmetic results, with mandibular plane modification and was treated for advancement with important lateral angle projection. The wing osteotomy is an innovative technique highly predictable for the correction of deficiencies, excess and asymmetries of the inferior mandibular border, reducing the morbidity and many other complications of the traditional bone grafts and alloplastic techniques.

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Patient satisfaction survey in orthognathic surgery: a five years retrospective study in San Borja Arriarán Hospital, Santiago de Chile

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The aim of this study was to evaluate the number of patients undergoing orthognathic surgery in the last 5 years (between 2005 and 2010). With this database contact the patient and complete a telephonic assessment questionnaires to measure the discomfort during the post operative period and satisfaction with final results.

Material and method: Obtain the database from surgical interventions from 2005 to 2010 including only orthognathic surgery and classifying the sample in two groups. Group I Dentofacial disharmony type II (DFD II) and Group 2 Dentofacial disharmony type III (DFD III).

The study excluded patients with cleft lip and palate, reconstructive Lefort with bone graft and syndromic deformity.

The patient completed a telephonic assessment questionnaire including domains as pre surgical reasons and expectations, pain, swelling, paresthesia, TMJ symptoms in the recovery period,

and esthetic and functional changes as a final result.

We tabulated the results by statistical software Systat 13 and χ^2 for data collection. This analysis allowed us to conclude that orthognathic surgery can improve functional and esthetics related to their jaw deformity.

Report the level of satisfaction and discomfort following this procedure. The outcomes obtained will be presented in detail and help us to improve our management before and after surgery.

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Embolization of the pseudoaneurysm of the sphenopalatine artery after orthognathic surgery

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In orthognathic surgery, Le Fort I osteotomy is one of the most used methods for correction of dental-facial deformities and is considered a secure procedure. However, this procedure may lead to various complications, including uncommon vascular complications. We describe a case of late development of a pseudoaneurysm in a branch of the maxillary artery in a patient 20 years old who had undergone bimaxillary surgery at Hospital São Lucas. Pseudoaneurysm is caused by an incomplete injury to the blood vessel with rupture of one or more layers of the vessel wall rather than the rupture of all layers. Pseudoaneurysm of the external carotid artery or its branches is rare. In clinical evaluation the patient denied routine use of medication, alcohol, tobacco or illicit drugs. Nine weeks after surgery returned with swelling in his left cheek, pain at palpation, and complaining of nasal bleeding in the last 24 h. Nasal packing was performed and an angiography by CT with contrast revealed a lesion measuring 2 mm × 2 mm in the left sphenopalatine artery. After 48 h another episode of epistaxis aggravated the injury which increased to 13 mm in length after further examination. The patient underwent emergency embolization with microcoils in the sector of Neuroradiology at Santa Casa de Mis-

ericordia. Treatment showed resolution of the lesion without side effects and no recurrence during the postoperative follow-up of 15 months. Among the main forms of treatment of vascular lesions, embolization demonstrates to be a technically safe procedure with few complications.

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302 Transverse maxillary distraction – preliminary reports

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Introduction: Surgical assist during immediate palatine expansion is enumerated among several procedures utilised in treating maxillary narrowing. There are various types of this procedure, including anchoring to teeth, to the bone, with partial or complete osteotomy. Surgical procedures based on anchoring the devices to the bone are used in patients after growth spurt in order to achieve correction of maxillary narrowing, crossbite, crowded anterior teeth and large side **corridors** in adult patients. Stabilisation of tooth born devices for expanding the palatine suture may lead to early or late complications, hence palatal distraction with LFI maxillary osteotomy was utilised, by means of bone borne distractor, in order to avoid problems associated with the use of tooth borne devices.

Aim of the thesis: Presentation of early treatment results, based on the example of patients, with discussion concerning surgical technique, next to initial evaluation regarding functioning of the device.

Method: 20 patients treated with Distractor device, preliminary analysis of maxillary **dental casts** models, X-rays and photos illustrating faces of the patients.

Results: Initial evaluation concerning efficiency of the procedure, distraction time, complications and patient satisfaction.

Conflict of interest: None declared.

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303 Preoperative cephalometric analysis of skeletal Class III patients treated with maxillary advancements

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The purpose of this study was to evaluate, using dental, skeletal and soft tissue cephalometric analyses, a group of Class III patients clinically diagnosed as maxillary deficient and treated with orthognathic surgery. The preoperative cephalograms of 50 patients treated with maxillary advancements were hand-traced by the same operator. Cephalometric analyses were performed and mean values for each measurement were compared with the norms using *t* test for a mean ($p < 0.05$). Results showed an increased inclination of the upper incisors was found, with a mean U1-NA angle of 27.58° and a mean U1-PP angle of 116°. Lingual inclination of the lower incisors was also observed, with a mean L1-NB angle of 22.53° and a mean IMPA of 83.13°. 70% of patients presented labial inclination of the upper incisors, and 56% presented lingual inclination of the lower incisors. Results also showed significantly increased values for antero-posterior measurements of the mandible, such as mandibular length, Pg-NPerp and SNB. In male patients, maxillary length and Nperp-A were decreased, while in female patients NPerp-A was similar to the normative value. SNA was normal in both genders. Soft tissue measurements suggested normal antero-posterior position of the maxilla and an anteriorized mandible in both genders. In conclusion: (1) remaining dental compensations were found in most patients and the lower incisors were more frequently decompensated than the upper incisors; (2) most skeletal and soft tissue cephalometric measurements showed little correlation with the clinical diagnosis and actual surgery performed in this sample of Class III patients.

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304 Orthognathic surgery in cleidocranial dysplasia

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Introduction: Cleidocranial dysplasia (CCD) is a rare dominantly inherited autosomal bone disease that is characterized by delayed closure of fontanelles, presence of open skull sutures, hypoplastic or aplastic clavicles, supernumerary teeth, delayed eruption and impaction of permanent dentition, morphologic abnormalities of the maxilla and mandible, wide pubic symphysis, short stature and a variety of other skeletal changes. CCD is also known as Marie-Sainton disease, mutational dysostosis, and cleidocranial dysostosis. It is caused by mutations of the transcription factor RUNX2, which is known as a major regulator of bone differentiation.

Case report and treatment: In this case report, treatment of a 23 years old CCD patient with multiple impacted teeth and Class III craniofacial relation is presented. Impacted teeth were exposed with surgical procedure and forced to erupt with help of orthodontic elastics then preorthognathic dental alignment were made by orthodontic treatment. Class III craniofacial relation was treated with orthognathic surgery.

Conclusion: Dental abnormalities are a well-known complication that causes morbidity in CCD patients and management of these are performed by a team approach with the overall goal to provide an esthetic facial appearance and functional occlusion. Orthognathic surgery combined with the orthodontic therapy to correct mid-face hypoplasia is considered to reduce the Class III malocclusions for the CCD patients.

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