Occlusal and Dental Outcomes Following Facial Allotransplantation

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INTRODUCTION AND OBJECTIVES: Most of the literature surrounding face transplantation focuses on immunology, function, and psychology. Dental and orthognathic outcomes remain persistently underreported. This study sought to review the worldwide face transplant experience and, for the first time, evaluate dental, orthognathic, and skeletal outcomes.

MATERIALS AND METHODS: All composite allografts containing maxilla and/or mandible with alveolus were examined, and dental and orthognathic complications were recorded. Clinical photographs, radiographs, and/or computerized tomography scans from the literature were analyzed using Angle’s classification, cephalometrics, and facial profile angles. The most recent orthognathic outcomes of our 3 facial transplant patients are also presented.

RESULTS: The worldwide experience consists of 45 face transplantations; 25 patients received allografts containing maxilla or mandible, and 16 (64%) involved double jaw. All documented patients had ≥1 dental/occlusal complication: temporomandibular joint ankylosis (9/25, 36%), dental caries and extractions (32%), palatal fistula (28%), Angle class II malocclusion (24%), class III (12%), open bite (20%), maxillary rotation (8%), skeletal nonunion (8%), and hardware infection (4%); 28% of patients underwent revision surgeries involving LeFort I, III, or mandibular osteotomies. Imaging conducive to Angle, cephalometric, or facial profile angle analysis was available in 100% (7) of reported maxilla and 63% (10) of double jaw transplants. The majority of maxilla-only transplants had insufficient teeth, whereas soft tissue profile was most commonly class II. Double jaws were equally Angle class I, II, or III, but mostly class I or class III with regard to facial angle profile. All of our patients have received maxilla and/or mandible, and all have required dental extractions. Angle classification, cephalometrics, and facial profile angles vary across our patients, whereas class III soft tissue facial profile seems to predominate.

CONCLUSION: Dental and orthognathic complications remain extremely common but underreported after facial allotransplantation involving either single or double jaw composites. In fact, every documented face transplant has ≥1 occlusal or skeletal defect. The risk of malocclusion increases with simultaneous transplantation of maxilla and mandible and often necessitates revision surgery in this unique population. Craniofacial principles and advanced surgical planning should be utilized to achieve facial balance. Additionally, we must standardize the way in which face transplant patients are presented in the literature.

Impact of Oral β-Blockers on Surgical Treatment of Infantile Hemangioma

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INTRODUCTION: Infantile hemangioma is the most common benign neoplasm of infancy.1 Treatment varies according to size, location, local complications, and evolutive stage.2 Surgical treatment in the active phases was considered one of the main options. Since 2009, the use of β-blockers for treatment of patients with infantile hemangioma was scientifically supported. Simultaneously with the favorable results obtained, doubts about the impact on surgical indication arose. To date, there are limited data discussing these changes in surgical practice. Therefore, this study intends to answer important questions from plastic surgeons all over the world regarding the surgical management of infantile hemangiomas:

- Has the number of procedures reduced?
- Have the surgeries been delayed?
- Have the procedures been less complex?

PURPOSE STATEMENT: Compare management of patients with infantile hemangioma before and after the introduction of β-blockers and assess whether pharmacologic therapy changed surgical treatment in terms of number of cases operated, magnitude of the procedure, and timing of surgery.

MATERIALS AND METHODS: A retrospective cohort study was accomplished, including 278 patients with infantile hemangioma followed between 1998 and 2016. Patients with active (noninvolved) infantile hemangioma without urgent indication of treatment and with lesions in relevant anatomical