
**COLLABORATION BETWEEN ORTHODONTIST AND MAXILLOFACIAL
SURGEON ON THE MANAGEMENT OF CLASS III MALOCCLUSION THROUGH
LE FORT I OSTEOTOMY**

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Abstract: Examples given by media and social media about esthetics and models of beauty have given to people more reasons to ask for corrections of face anomalies. On the other hand even the expectations of the patients are getting more important. That means that the work of the orthodontist and maxillofacial surgeon is getting more difficult. Nowadays with the pre visualization of the results electronically, challenge is to realize the surgery 'as the computer pre visualized. All the patients were treated at Isufi Royal Dental and MaxilloFacial Surgery unit Amavita Hospital Tirana. In our study 29 patients with dento-skeletal anomalies were treated from them 23 females and 6 males. The ages were from 17-37 and the and the mean age was 22.07 years old. Mostly the procedure performed to resolve these anomalies were a combined technique Le Fort I and BSSO in 62% of the cases. Complications of these procedures were minimal like two cases of plate exposure managed without negative outcomes. What concerns the diagnoses it is made by radiological findings and photographic achievements near to worldwide protocol.

Keywords: Malocclusion Class III ;Orthognatic surgery, Le Fort I osteotomy, dento-skeletal anomalies

1. INTRODUCTION

Examples given by media and social media about esthetics and models of beauty have given to people more reasons to ask for corrections of face anomalies. On the other hand even the expectations of the patients are getting more important (Reyneke 2007; Buchanan et al. 2013). That means that the work of the orthodontist and maxillofacial surgeon is getting more difficult and it should be predictable. Nowadays with the pre visualization of the results electronically, challenge is to realize the surgery 'as the computer pre visualized' (Janson 2008; Frapier et al. 2013). Also reasons why patients ask for surgery are not pondering on the functional side, but much more on esthetical side (Wang et al., 2013; Tsai et al. 2010). on this article will be evaluated the role of Le Fort I osteotomy in treating dento-skeletal anomalies based on four year experience 2020-2024 on the "Isufi Royal Dental " and Oro Maxillo Facial Surgery unit at Amavita Hospital Albania.

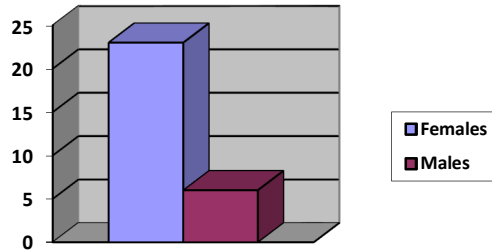
2. MATERIAL AND METHODS

Patients that have undergone Orthognatic Surgery for dento- skeletal anomalies from April 2020- April 2024 were analyzed in the study. All of them were treated at Isufi Royal Dental and MaxilloFacial Surgery unit Amavita Hospital Tirana. The data was collected from operating , clinical files and statistic service of the hospital. All the patients treated had signed a consensus for the surgery and for treating their data. In our study 29 patients with dento- skeletal anomalies were treated from them 23 females and 6 males. The ages were from 17-37 and the mean age was 22.07 years old. The majority of them were diagnosed with a progenic syndrome, with laterodeviation. one of them was a post labiopalatoschisis status, while 18 of them so 62%, had surgery in both jaws. Our treatment protocol provides a evaluation stage on witch the patient undergoes three x rays: panoramic, L-L, P-A. Sometimes CT scan may be necessary to evaluate airway path. After cephalometry is performed, cast models are prepared and a set up of the models is done. A virtual treatment objective is done by analogical cephalometry or electronically. All these is explained to the patient and after that he is send to the orthodontics for one year when a new set up is done. Surgical splints are performed and the surgery is performed. Techniques are: Le Fort I osteotomy, BSSO, SARPE, and Genioplasty while a miniplate and screws system of fixation is used. The surgery generally is followed by 4-5 days of recovery.

3. RESULTS

Female patients predominate in seeking these surgery with 78% of the cases.

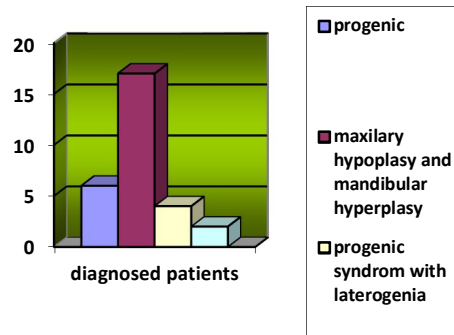
Graphic 1. Male vs female patients



Source:Dr.AuroraIsufi

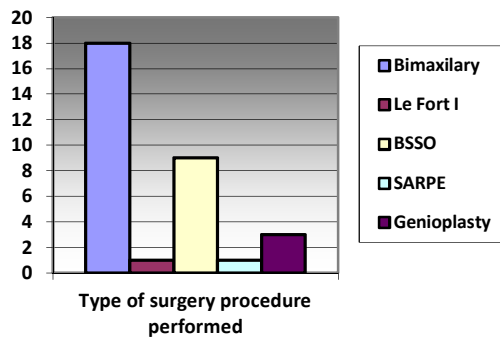
The most frequent anomaly in these patients were combined bimaxillary anomaly witch were present in 58% of the cases

Graphic 2. Frequency of anomalies reached to our patients



Source:Dr.Aurora Isufi

Graphic 3. Type of surgery technique performed



Source:Dr.Aurora Isufi

Mostly the procedure performed to resolve these anomalies were a combined technique Le Fort I and BSSO in 62% of the cases. Complications of these procedures were minimal like two cases of plate exposure managed without negative outcomes.

4. DISSCUSIONS

From our study results that female patients predominate on male ones seeking these kind of treatment with 78%, while the combination of the anomaly in booth jaws was more frequent. these concord with some results made in Albania from (*Isufi et al2020*)in a larger scale of patients who says that 63% of patients seeking for surgical treatment were female. These happens because the perception of this problems to women is more sensitive. Otherwise on international literature (*Nelke et al2018*). at *J. of Craniomaxillofacial Surgery 2018* talks about 82% predominance of female patients seeking surgery. We had a result at 62% of surgery performed in booth jaws witch concord with authors like (*Andrup et al.2015*).*Int J Oral Health 1-4 2015* witch mentioned a surgery performed in booth jaws at 62.7% of the cases. What concerns the diagnoses it is made by radiological findings and photographical achievements near to worldwide protocol (Passalboni et al.2023;Li et al.2024; Jeyaraj et al.2021; Möhlhenrich et al.2021;Lathrop-Marshall et al.2022).

5. CONCLUSIONS

Mostly the patients presented to our Clinic were suffering from a III class of dent-skeletal anomaly, which required bimaxillary surgery. Diagnosis was determined regarding the actual protocols applied by Isufi Royal Dental and Amavita Hospital. The role of Le Fort I osteotomy is crucial not only for resolving isolated maxillary anomalies in single jaw deformities, but also were a combination of the anomaly in booth maxilla and mandibular, because this osteotomy permits the un-obstruction of the airway path performed in back warding the mandible in class III anomalies and also increasing in association with orthodontics the stabilization of the result achieved.

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