

Evaluation of Patients after Septorhinoplasty using Classic Lateral Osteotomy and Controlled Nasal Bone Fracture

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SUMMARY

Rhinoplasty, also known as nose surgery is the surgical method of prolonging or shortening the nose, changing its shape and contours, narrow nostrils or lifting and defining the top of the nose. Aim of the article: Evaluation of efficacy of two surgical methods that solves the lack of aesthetic nasal hump–dorsal hump, compare postoperative course of the groups of patients and analysis of the effects of possible complications. Methodology and sample: Classic lateral osteotomy has its two modifications in our study; we used the method perforation made instrument osteotom with diameter 2mm. The second method is called controlled fracture can be for various instruments and even handle an instrument that is done follow, controlled the wrist. We do this intentional fracture of nasal bone in the expected area of suture between it and the continuation of the nasal maxilla. The study was conducted retrospectively on a total of 65 patients who underwent surgical treatment at the Clinic for ear, nose and throat disease of the Clinical Center, University of Sarajevo and the Clinic “Bosanes” in the past year. Although most patients combined with nasal arms there were other deformities, our research is based solely on the analysis of only one corrected aesthetic deficiency. Photos made with a digital camera used as a way to make a decision on the possible errors by comparing before and after surgery. Results: Significant differences exist when using one method over another and refer to the duration of postoperative period in patients of all ages and both sexes. And the result is significant complications resulting type of bleeding and the creation of periost hematoma. Research has shown that the patients underwent conventional method of lateral osteotomy had a longer recovery for 7 days, as well as the occurrence of complications expected for this procedure is present in most patients.

Keywords: nasal crest, lateral osteotomy, controlled fracture, rhinoplasty.

1. INTRODUCTION

Rhinoplasty, also known as nose surgery is the surgical method of prolonging or shortening the nose, changing its shape and contours, narrow nostrils or lifting and defining the top of the nose. (1)

Of all the cosmetic surgery rhinoplasty is one of the most fascinating. Not only that it need good navigation of the surgeon in all three dimensions, but also the development of a special feeling when to stop with the instrument in the performance of the procedure. In addition, this surgery is more a matter of making the right decisions, but only performance and technique requires a great deal of experience surgeon. (2)

Because of the fact that there are anatomically diverse number of versions of all three dimensions of the nasal bones, (the length width and thickness), rhinoplasty is a method that essentially depends on the combination

of good performance assessment of selected operational and technical performance of the surgery. Although in most cases is an aesthetic surgery it can have lethal consequences. Therefore, we put emphasis on the experience of the operator in making decisions about surgical technique in each individual case.

2. GOALS

- The main goal of the research is comparison of success of nasal hump surgical method, postoperative course and the occurrence of possible complications.
- Choosing a favorable method for patient and surgeon at the individual cases with the same surgical indications in relation to the degree of deformity.
- To prove the importance of a thorough clinical examination of the patient preoperatively and postop-

eratively and the importance of the existence of the photographic record of the decision on the validity of the procedure.

3. SAMPLE AND METHODOLOGY

In our study we used the classical method of lateral osteotomy in which we not continuously performed a couple of perforations with osteotom along the nasal bone. Lateral osteotomy is done on the outer – with percutaneous method and with osteotom in diameter of 2mm. (5) Perforated leather at the osteotomy heal without the placement of any seams, even in the literature on this there are divided opinions. (3,4)

In parallel, a number of patients underwent a controlled method of nasal bone fracture. Techniques in relation to the target and deliberately making nasal bone fractures expected in the area of its suture with maxilla.

Classical lateral osteotomy as a method of controlled fracture of nasal bones was made at a total of 65 patients in the last year. The most common indications for which patients reported the surgery in the Clinic “Bosanes” and the Clinic for ear, nose and throat of the CCUS was a so-called “dorsal hump”- nasal crest. There were also joint abnormalities in anatomy of the nose in many patients, but in this study they are not further analyzed.

At the Clinic for ear, nose and throat CCUS is operated 35 patients, and in “Bosanes” a total of 30 patients, equally present men and women, aged 20 to 40 years. Groups of patients differ in the technique used in the performance of rhinoplasty. So that for the total number of 40 of them



Figure 1. Dorsal hump before surgery

is made the classical method of lateral osteotomy and for the remaining 25 control nasal bone fracture. Each surgery is planned after a thorough clinical examination of patients and analysis of photographs made in all projections.



Figure 2. After the surgery

Rhinoplasty method	Mean age	Days of postoperative treatment	Complications
Controlled fracture (n=25)	30	28	n = 0 P = 0.038
Classic lateral osteotomy (n=40)	30	35	n = 7 patients with hematoma and slow closure of the wound

Table 1.



Figure 3. Before surgery



Figure 4. After the surgery

4. RESULTS

Surgeons have divided opinions about should the period of the nasal bone be removed in the procedure. Supporters of the theory of periost growth believe that preserved periost reduces postoperative size of the island, this is achieved by preventing periost splitting and so we avoid the occurrence of resulting bleeding (6).

In our research we noticed faster healing of wounds by method of controlled fracture, a shorter postoperative recovery for 7 and the absence of the postoperative complications. Method of controlled fracture, without damaging periost, easily provide the nutrition field, which should be healed, and consequently avoid the bleeding that occurred after the inevitable damage of the periost. In addition, hematoma that was created for any reason in the area where we expect healing would interfere with the same process, its mechanical appearance of the island and because of possible infection.

Figure (1) and (2) show the situation before and after nasal surgery in male and (3) and (4) in female patient.

The pictures (2) and (4), are shown in operative condition followed the method of controlled fracture.

5. DISCUSSION

Lateral osteotomy as a method with external access to nose surgery has its primary advantage, and this operation is the possibility of large nasal deformity, as the internal approach, we cannot perform (7). In our study, we chose the two methods with external access to the nose, because we have worked on cases correcting major deformities of the nasal hump.

Escobar Sanz-Dranguet P. and authors have made retrospective study at the 45 patients who were operated lateral osteotomy technique. Of the total number of patients operated on was 67% men and 33% of women with a mean age (mean = 25). Analysis of the postoperative period was conducted in 35 patients. Of this number, 78% were satisfied with the corrected deformity and 22% stated that surgery achieved remarkable progress. Number of days of recovery is in accordance with the other authors who have, on average, result in a period of 30 to 35 days (8).

In our study we obtained results that are not significantly different from other authors regarding the recovery period after using the techniques of classical lateral osteotomy. It is shown statistically that the use of techniques of fracture gives better results, shortens the period of postoperative recovery and minimizing the occurrence of any complications.

R. Palmer states in his research that the recovery period after lateral osteotomy in rhinoplasty patients for average last month. Under this period of time than they think when the patient is able to return to normal activities. On the issue of scarring and the final appearance of the nose should wait for a period of one year. The period from the first three weeks of healing is the most sensitive because of the nasal bones are then quite unstable (9).

In our study the lateral osteotomy patients were recovering for an average of 35 days, and 10% of patients

who had a kind of individual postoperative complications even longer.

6. CONCLUSION

- Use of controlled fracture in relation to the classical lateral osteotomy provides better and shorter postoperative recovery and reduces the potential for the expected complications.
- The degree of deformity and variations in anatomy of the nose of the patient should provide the basic criterion for selecting surgical technique of correcting the nasal hump deformity.
- Detailed preoperative and postoperative clinical examination and comparison of the situation visible on the photographs are essential for detection of possible mistakes in selecting methods and performance techniques.

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