

Case Report

The Nasal Reconstruction of a Patient with Relapsing Polychondritis

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Submitted: 29 April 2017

Accepted: 29 June 2017

Published: 01 July 2017

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OPEN ACCESS**Keywords**

- Relapsing polychondritis
- Hyperemia
- Nasal reconstruction
- Epistaxis

Abstract

The Relapsing Polychondritis (RP) is an uncommon systemic disease of unknown aetiology, probably due to an autoimmune process that destroys cartilaginous tissues because of a recurring inflammatory lesion. Deformities in the nasoseptal structure as the “nose in saddle” result in functional and aesthetic damage. The present study describes a case of a 53-year-old woman with the main diagnostic hypothesis consisting of Relapsing Polychondritis. This patient evolved with severe nasal deformity and was surgically treated with the use of costal cartilage for L-shaped nasal reconstruction. She had a satisfactory functional outcome resulting in normal breathing function.

INTRODUCTION

The Relapsing Polychondritis (RP) is an uncommon systemic disease of unknown aetiology, probably due to an autoimmune process that destroys cartilaginous tissues because of a recurring inflammatory lesion. The RP affects the population between 20 and 60 years old and it is not related with sex or race. It does not have a clear genetic predisposition and it is associated with other autoimmune processes. The episodes of recurring inflammation of the cartilages may evolve resulting in deformities of auricular pavilion, laryngotracheal cartilaginous collapse and hearing loss due to the attack of the internal and external ears. There also may be nasal deformities leading to “nose in saddle” arising from the repeating chondritis [1].

Deformities in the nasoseptal structure as the “nose in saddle” result in functional and aesthetic damage. When there is a severe defect, cartilage grafts can be used for the reconstruction of the nasal unit [2].

Sheen [1984] described a technique for correction of the medium third of the nose through the use of cartilage grafts in “twig” (spreader graft) between the septum and the upper lateral cartilages (ULC), with the objective of expanding the medium third. The use of these grafts was suggested in this case as a form of preventing complications also in primary rhinoplasty. With experience, its use was enlarged, being also indicated for correction of septal deviations and for tip support [3]. The columellar strut or strut graft is the first choice for maintenance or tip earning projections. With the evolution of the technique, the graft won versatility, being able to be fixated to the nasal

spine, to the caudal septum or to a longer spreader graft. This way, it is possible to achieve more projection and stability with maintenance of the long term support [3]. Last decade, Günter et al., Proposed a method for correction of the lateral portion of the lower lateral cartilage (LLC) badly positioned. The lateral crural strut graft has versatility, contributing to the support of the tip, rectification and reorientation of the lateral crura of LLC and prevention or correction of external valve collapse [3].

The need of cartilaginous grafts during a nose surgery became practically obligatory in primary or secondary nasal reconstruction, with the aim of a more predictable result at long term.

OBJECTIVE

The present study reported a case of a patient with the main diagnostic hypothesis being Relapsing Polychondritis. This patient evolved with severe nasal deformity and was surgically treated with nasal reconstruction aiming her functional recovery.

CASE REPORT

A.A.C.S, 53 years old, female, resident in Horizonte/CE, previously healthy, started having epistaxis of moderate volume in both nostrils 10 years ago. Evolving, after a few months, with edema, hyperemia and bilateral ocular pruritis, along with erythematous plates, bubbles and vesicles in the whole body, not connected to exposed to sunlight. She was treated empirically for Dermatitis Herpetiformis and Lupus with dapsone and prednisone, suspected due to biopsies performed. There were

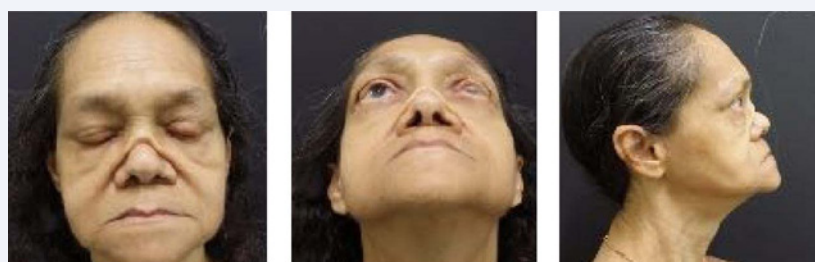


Figure 1 Preoperative status.

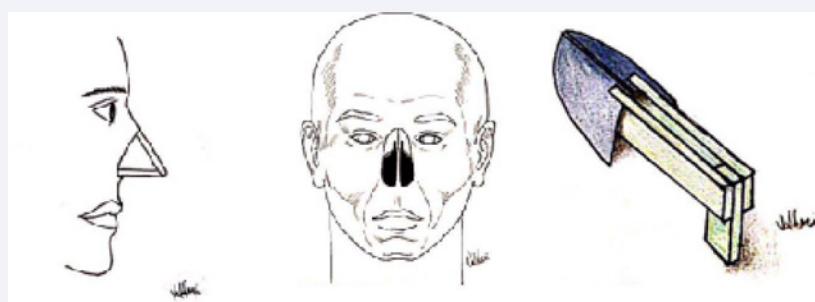


Figure 2 Model of planned technique.

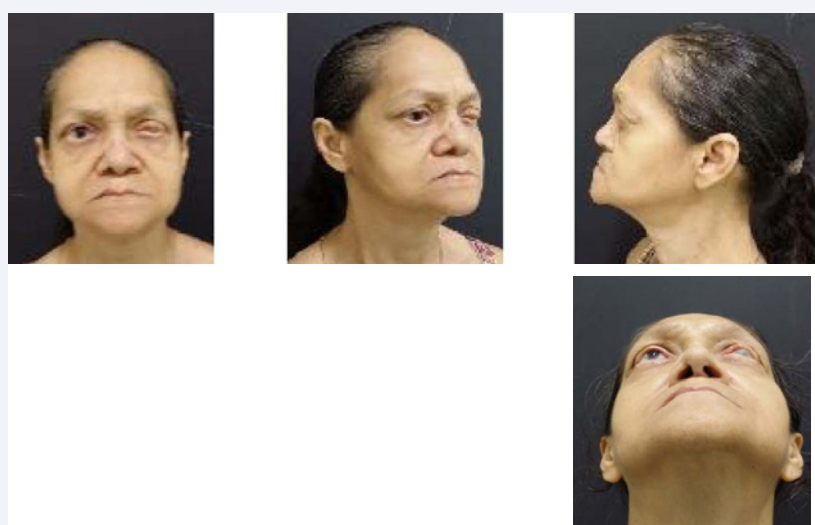


Figure 3 Post operative status.

complications as entropion, cornea ulcer and consequent blindness of the left eye, progressive dysphagia, dysphonia and hoarseness.

In the last three years, it was observed progressive fall of the base of the nose. That fact motivated the patient to look for an otolaryngologist, who evidenced "nose in saddle" with indication for surgical treatment due to difficulty to breathe.

The main diagnostic hypothesis was Relapsing Polychondritis. The structured reconstruction of the nose, after clinical stabilization of the disease with immunosuppressants was chosen as treatment.

The patient was operated under general anesthesia. All the nasal structures were dissected by the transcolumellar access point and it was observed the lack of the triangular and septal cartilages. The alar (lateral inferior) cartilages were whole, but they presented structural weakness. Afterwards, a piece of costal cartilage was removed by inframammary access. Then, two types of long spreaders and one strut were modeled in the shape of an "L". A bone incision was performed with osteotomy in the encounters of the nasal and septum bones to fit the spreaders. To avoid alar cartilage collapse, two cartilaginous grafts type Günter were made and fixed.

Afterwards, it was performed the suture of the mucous

membrane and of the columella and it was put a splint on the back of the nose. The patient was released from the hospital the next day without problems and returned to the clinic in one week. She was accompanied in the 14th day, 30th day, 60th day and after 6 months, preserving the result without alteration.

According to the literature, nasal reconstruction of increase through cartilaginous or bone grafts, “L-shaped”, the same technique used in the case related, is indicated for the treatment of local consequences, cocaine use and systemic diseases such as Leprosy, Tuberculosis, Wegener’s Granulomatosis and Relapsing Polychondritis [2].

DISCUSSION

Authors that suggest the use of bone graft for nasal reconstruction of these diseases, justify that choice in the fact that they tackle the cartilaginous tissues, like the nasal septum, and its vascularization causing “nose in saddle”; therefore structuring a new nasal form with bone sustentation tissue could stop the recurrence of nose fall. The most used bones for grafting are the bones from the skull and the iliac crest [4]. On the other hand, authors that defend the external use of cartilage are based on the fact that the systemic disease controlled by immunosuppressants can ensure efficacy in treatment, occurring in retrospective studies a free rate of average relapse in 3 years next to 100% [5].

The possible excessive enlargement due to spreader graft might have compromised the aesthetic result; however the functional outcome in this case was the main goal. A strut graft

was used for nasal tip projection and a Günter graft was used to avoid external valve collapse or weakness suggesting tendency to collapse, which are widely recommended for such situations in the literature [3].

CONCLUSION

The use of costal cartilage for “L-shaped” nasal reconstruction provided a satisfactory functional outcome which resulted in normal breathing function in the present case.

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Cite this article

Filho AL, da Silva Jr. VV, Montenegro Carvalho JP, da Frota Levy MR (2017) The Nasal Reconstruction of a Patient with Relapsing Polychondritis. *JSM Head Face Med* 2(1): 1006.