

Surgical approach in giant rhinophyma.

A case report

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Case Report

Plastic Surgery



Background

The name Rhinophyma derives from the Greek word “Rhis” for nose and “Phyma” meaning growth. It is a progressive disruption of the nasal architecture, airway obstruction and disfigurement of nasal aesthetic units. This condition is an advanced stage of Rosacea. The exact incidence and prevalence of rhinophyma it is still unknown, being more common in Caucasian males between the fifth and seventh decade of life. The clinical feature is characterized by a benign thickening of skin, surface irregularities, erythema, telangiectasias, nodules and lobules with a bulbous appearance; In severe cases nasal obstruction is marked by external nasal valve collapse. This disease can be classified according to the Rhinophyma Severity Index (RHISI), our patient obtained a RHISI score of 6, which represents a “giant rhinophyma”.

There are different types of treatment, from pharmacological to surgical treatment; the indications for surgical treatment are the correction of the aesthetic deformity and the obstruction of the nasal airway. The principles of surgical treatment include removing the phymatous tissue and preserving nasal aesthetics. In this article we present the case of a 67-year-old man with giant rhinophyma, who underwent surgical treatment, obtaining great aesthetic and functional results with total patient satisfaction.

Keywords: Giant Rhinophyma, RHISI, Surgical Treatment.

The name Rhinophyma derives from the Greek word “Rhis” for nose and “Phyma” meaning growth. It is a progressive disruption of the nasal architecture, airway obstruction and disfigurement of nasal aesthetic units. This condition is an advanced stage of Rosacea, it is more common in men, believed to be by increased androgen activity in males, with a ratio of 12:1 to 30:1.^{1, 2} There is significant psychosocial morbidity associated with the disease due to severe cosmetic problems.³

It affects the lower two-thirds of the nose including nasal tip, nasal ala, distal dorsum. The clinical feature is characterized by a benign thickening of skin, surface irregularities, erythema, telangiectasias, nodules and lobules with a bulbous appearance. Along with hypertrophy of sebaceous glands in nasal tissue. In severe cases nasal obstruction is marked by external nasal valve collapse.^{1, 2}

Case report

We present the case of a 67-year-old male with Type 2 Diabetes-Mellitus, without any other chronic-degenerative diseases. He went to Plastic and Reconstructive Surgery consultation due to presenting thickening of the nose of one year of evolution, with

nasal dermatosis, abundant seborrhea, dilated pores, and progressive increase in the size of the lesion with the presence of neoformations on both nasal wings and on the nasal tip, causing partial obstruction of the upper airway.

On physical examination, thickening of the nose was observed, especially in the lower third (tip and alae), with the presence of tumor lesions at the level of the tip and nasal wings of approximately 3 cm diameter with bullous, papulonodular, erythematous characteristics and telangiectasias, which caused valve collapse and closure of the nostrils. (Figure 1).

Surgical treatment was chosen for giant rhinophyma, performing the procedure in a single intervention, with a previous complete surgical protocol.

Surgical marking is performed, starting with an incision in the columella, with subsequent dissection and resection of tip and wing tumor lesions with a scalpel. Hemostasis was performed with monopolar electrocautery; we continued with the removal of excess fatty tissue from the same areas, with subsequent placement of a hydrocolloid patch, which was fixed with 4-0 nylon.

In the postoperative follow, up nasal erythema was presented, which lasted approximately 6 weeks, without presenting complications or

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Figure 1: Preoperative photographs showing giant rhinophyma (RHISI 6). **A:** Frontal View; **B:** Right side view; **C:** Left side view.

recurrence of the lesions (Figure 2). Currently observing great aesthetic and functional results, with total patient satisfaction. (Figure 3).

Discussion

The incidence and prevalence of rhinophyma is still unknown. Caucasian males between the fifth and seventh decade of life are the most affected, while it is rare in Asian and African populations.^{1,2,4} The disease is non-infiltrative and therefore the underlying bone and cartilage structures are preserved.

Rhinophyma represents the hyperplastic stage of Rosacea, commonly presenting as Rhinophyma (nose); it rarely develops on the chin (Gnathophyma), forehead (Metophyma), ears (Otophyma) and eyes (Blepharophyma).⁵ The main characteristic at the nasal level is the thickened and irregular appearance, often lobed, purple red in color and dilated pores; these phymatous changes occur at sites of maximum exposure to ultraviolet light.⁶

This disease can be classified according to the Rhinophyma Severity Index (RHISI), as described by Wetzig et al.⁷ RHISI 0: No evidence of rhinophyma; RHISI 1: Mild skin thickening; RHISI 2: Moderate skin thickening; RHISI 3: Strong skin thickening and formation of small lobules; RHISI 4: Strong skin thickening and formation of lobules with fissures; RHISI 6: Giant rhinophyma. Maximum one extra point in presence of strong asymmetry, multiple cysts, or strong vessels. The maximum score is 6 points.^{7,8} Our patient obtained a RHISI score of 6, which represents a “giant rhinophyma”.

There are different types of treatment for rhinophyma, divided into two main groups: non-surgical treatment and surgical treatment. Within the first group, the use of enteral and topical drugs such as doxycycline, isotretinoin and tamoxifen are described. Within surgical management there is laser therapy,

dermabrasion, radiofrequency, surgical excision, and the subunit method.^{2,9,10}

The indications for surgical treatment are the correction of the aesthetic deformity and the obstruction of the nasal airway. The principles of surgical treatment include removing the phymatous tissue and preserving nasal aesthetics.² As approached in our patient, performing surgical excision and reconstruction, due to the previously described characteristics.

In the follow-up, the rhinophyma was improved to a RHISI I, currently obtaining satisfactory functional and aesthetic results for the patient, continuing with surveillance without presenting any



Figure 2. Four weeks follow up with erythema

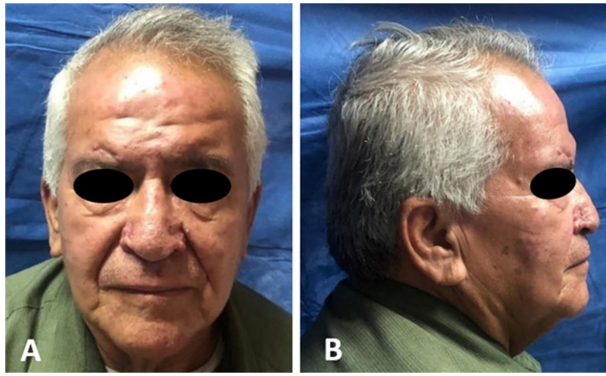


Figure 3. Results 4 months after surgery (RHISI 1). **A:** Frontal view; **B:** Right side view.

signs of recurrence.

Conclusion

Giant rhinophyma resection using electrocautery and scalpel on the back and nasal wings was successful with a follow up free of pain without any complications, with which great surgical and functional results were obtained. It is a safe, low-cost, fast, and widely available approach, which makes it a viable option for surgical management in rhinophyma.

Conflicts of interests

The authors have no conflicts of interest to declare.

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