CASE REPORTS

A Curious Case of Rhinophyma in a 73-Year-Old Patient

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Abstract

Rhinophyma is a benign tumor characterized by a progressive hypertrophy of the nasal soft tissue and it is believed to be the end stage of severe acne rosacea. It is more common in Caucasian men. The main differential diagnosis is the basal cell carcinoma. Non-surgical treatment proved insufficient in reversing this disease, while surgery remains the golden standard, even if a spontaneous regression may be observed in extremely rare cases. We presented a case of a severe rhinophyma associated with a giant nodule successfully treated with surgical removal of the suspicious tissues with safety margin and grafting of the excised area. The postoperative outcome was satisfactory for the patient.

Keywords: rhinophyma, basal cell carcinoma, giant nodule, skin graft

Rezumat

Rinofima este o formațiune benignă caracterizată prin hipertrofia progresivă a țesuturilor moi ale nasului și se consideră a fi stadiul final de evoluție al acneei rozaceea. Afectează cel mai des bărbații caucazieni. Principalul diagnostic diferențial îl reprezintă carcinomul bazocelular. Niciun tratament medicamentos nu s-a dovedit a fi eficient pentru această patologie, cazurile de regresie spontană fiind foarte rare. Așadar, rezecția chirurgicală rămâne tehnica de referință. În această lucrare este prezentat un caz de rinofimă severă asociată cu un nodul gigant care a fost tratat cu succes printr-o intervenție chirurgicală în care s-a practicat excizia formațiunilor suspicioase cu margini de siguranță oncologică și grefarea zonei restante. Aspectul postoperator a fost satisfăcător din punct de vedere estetic pentru pacient.

Cuvinte cheie: rinofirmă, carcinom bazocelular, nodul gigant, grefă de piele

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INTRODUCTION

Rhinophyma is a benign tumor characterized by a progressive hypertrophy of the nose soft tissues, with a reddish and bulky appearance, affecting most frequently elderly Caucasian males[1], which may also cause functional airway obstruction. It is believed to be the end stage of severe acne rosacea, but the real cause and the exact etiology remain unknown[1]. The male to female ratio of rhinophyma patient varies between 5 to 1 and 30 to 1[2,3]. The diagnosis is based on the clinical features of this rare and disfiguring disease using Rhinophyma Severity Index Score (RHISI)[4]. The main differential diagnosis is the basal cell carcinoma (BCC), with an occult incidence of 3% to 10% in patients with rhinophyma[1]. Non-surgical treatment proved insufficient in reversing this disease, while surgery remains the golden standard, even if a spontaneous regression may be observed in extremely rare cases[3].

CASE REPORT

A 73-year-old man was admitted to our Department of Plastic Surgery, complaining of nasal deformity with reddish appearance and thickening of the nose skin (Figure 1 and 2). Physical examination revealed a tumor growth on the nasal lobe and bilateral alar lobules with a macroscopic aspect of rhinophyma associated with a giant nodule on the right alar lobule (Figure 3). The nasal aesthetic units were deformed by this nodule registering a RHISI score of 6 points.

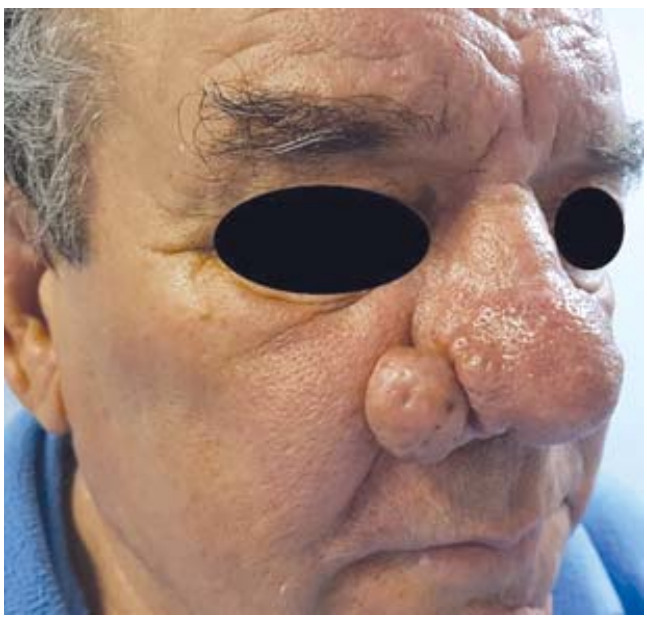

Figure 1. Clinical aspect of the Rhinophyma associated with giant nodule - side view.

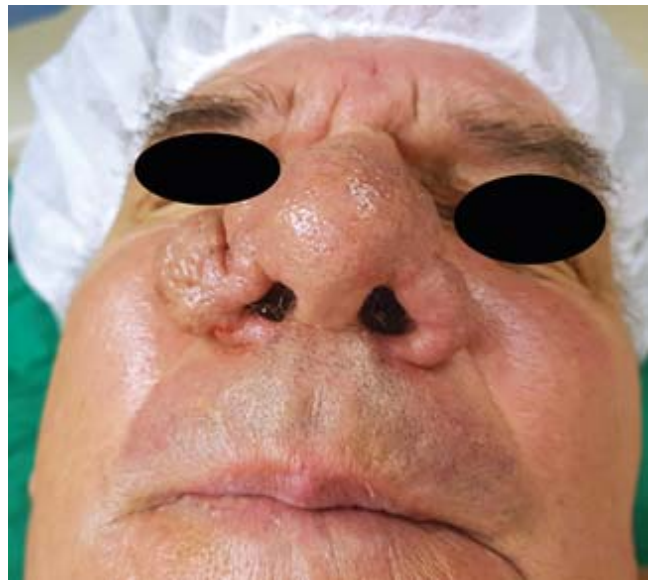

Figure 2. Clinical aspect of the Rhinophyma associated with giant nodule - frontal view.

He had no history of chronic illness but the pre-anesthetic assessment revealed an atrial fibrillation with rapid ventricular response and uncertain onset. A cardiovascular examination was performed with an echocardiography which confirmed the absence of thrombus in atrial cavity. Due to the high risk of embolism, anticoagulant therapy was imposed. No other medical problem was reported.

The surgical intervention was scheduled for the next period. It was performed under general anesthesia with orotracheal intubation. We performed a total removal of the giant nodule from the nasal wing with safety margin, while the rest of the tumor resembling rhi-

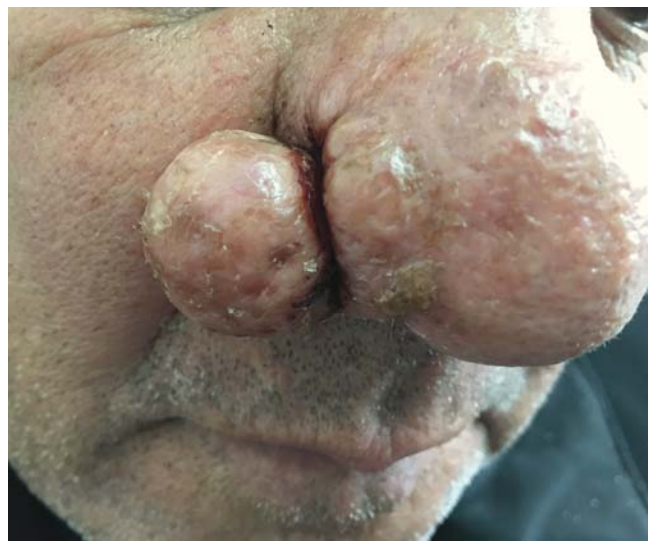

Figure 3. Clinical aspect of the giant nodule with hematic crusts at the base.

nophyma was removed down to 2-3 mm above the nasal cartilage (Figure 4). Intraoperative, a sample of the excised tumor was sent to an extemporaneous examination that confirmed the absence of malignant cells. The skin defect was covered with a full-thickness skin graft harvested from the left groin, which was processed and thinned (Figure 5). The secondary defect was closed using direct suture. The tumor was sent for histological assessment (Figure 6 and 7). A tie-over dressing was performed and changed after 3 days, followed by periodically local ointment and simple dressing.

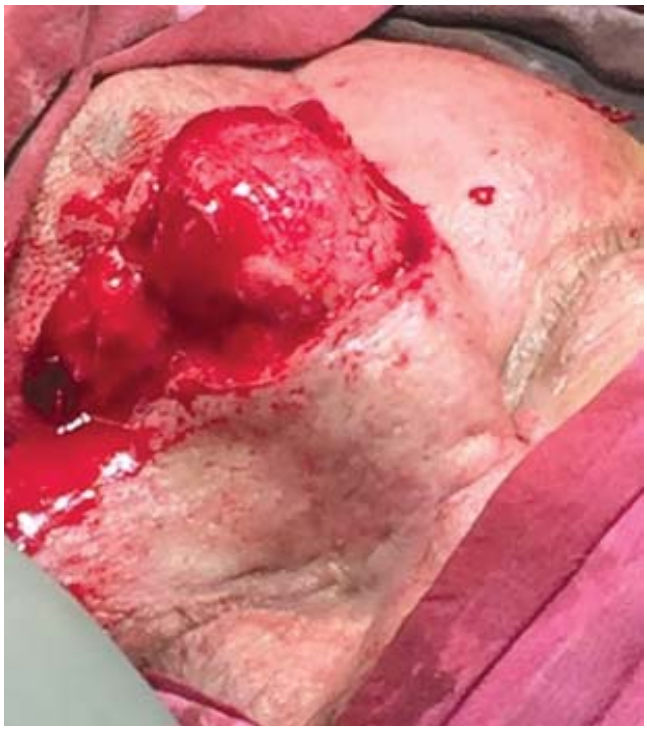

Figure 4. Intraoperative aspect of the defect after surgical removal of the tumor.

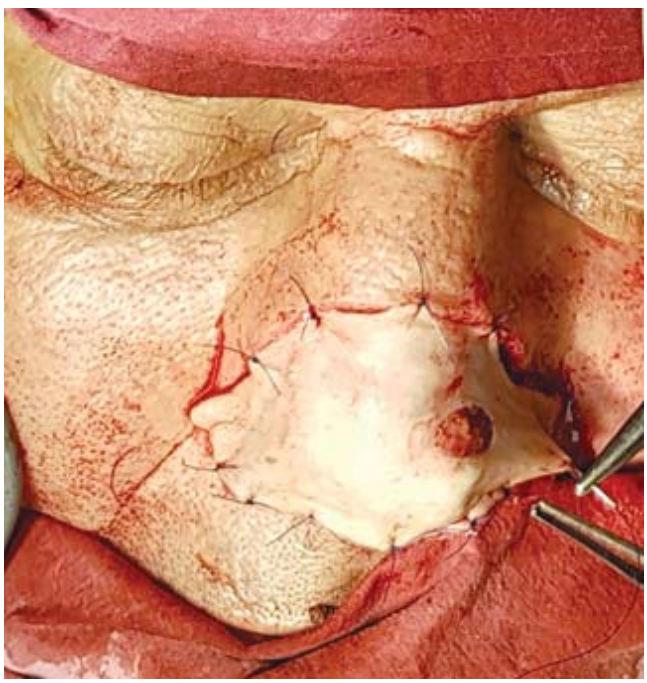

Figure 5. Intraoperative aspect of the skin graft covering the defect.

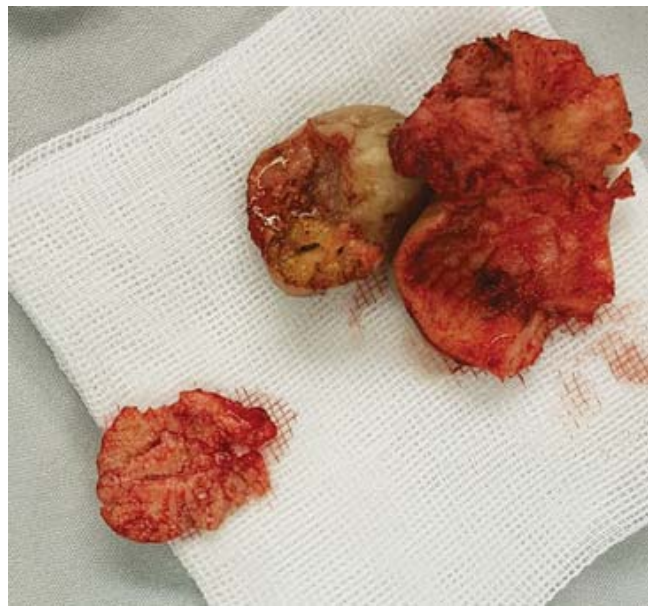

Figure 6. Macroscopic view of the tumor.

Figure 7. Macroscopic aspect of the nodule.

Three days after surgery, the patient started treatment with Acenocumarol prescribed by the cardiologist. A small hematoma was formed on the right alar lobule at the emerging site of the nodule which led to straining and detachment of the skin graft from the bed site (Figure 8). The hematoma was evacuated and the skin graft integration was complete after 7 days from surgery, without any other complications (Figure

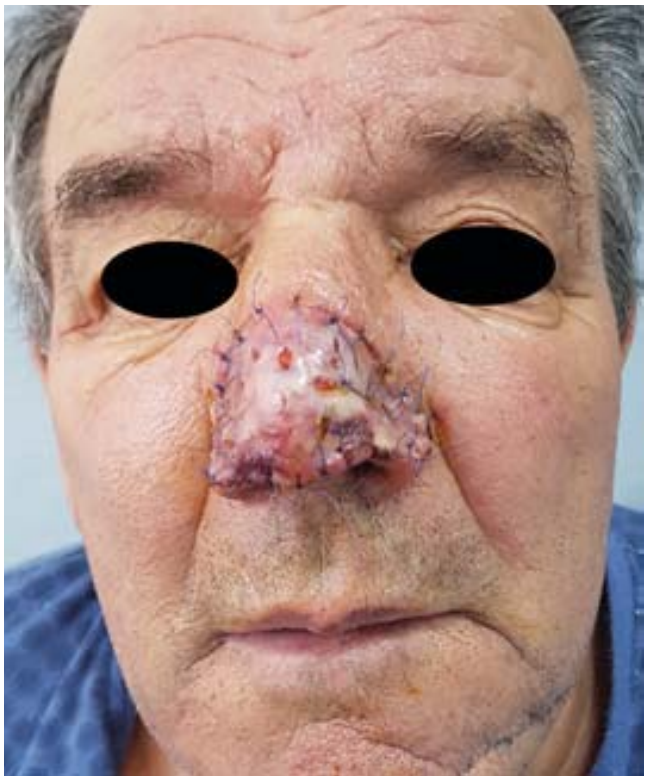

Figure 8. Clinical outcome after 3 days from surgery - partially integrated skin graft.

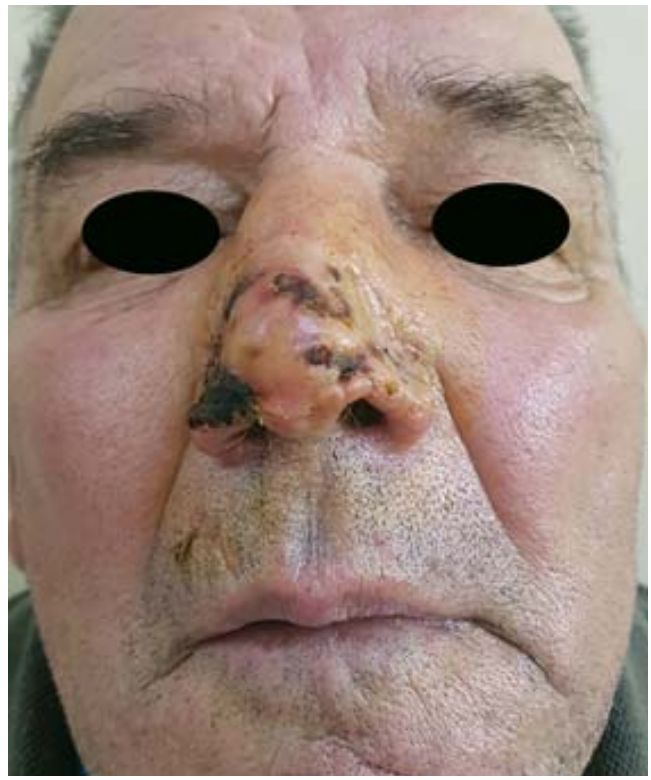

Figure 9. Clinical outcome after 7 days from surgery - completely integrated skin graft.

9). The stitches were removed and the graft was exposed after without any other dressing.

The histological assessment revealed hypertrophy and hyperplasia of the mature and immature type of sebaceous glands lobules associated with trichilemalian infundibular cysts filled with keratinized scums and trichilemic immature structures. The giant nodule was composed of fibro-conjunctival stroma which was fibrous, edematous and included chronic inflammatory tissue and population of epithelioid histiocytes.

Skin graft compatibility and esthetic expectation were satisfying after surgery, with a Visual Analogue Scale (VAS) score of 9 points, the patient being pleased with the final aesthetic result.

DISCUSSION

The basal cell carcinoma is the main differential diagnosis of the rhinophyma, with an incidence of 3 to 10% in this type of patients, being associated with a negative outcome[5,6]. There are cases described in the literature of rhinophyma associated with small multiple nodules but none of them describe a unique giant tumor which resembles nodular form of BCC[5,6]. At first, the clinical aspect in our case was suggestive for malignancy, but the intraoperative macroscopic examination (the tumor was sliced in half) and the histological assessment confirmed the benign nature of the tumor.

Using RHISI for the clinical features of our case, we registered 6 points, due to the giant rhinophyma associated with a giant nodule, which is the maximum score[4]. Usually it is correlated with the postoperative outcome, the maximum score has a negative expected result, but in our case the patient was satisfied with the cosmetic aspect.

The surgery remains the golden standard procedure in many cases, especially when it is associated with an abnormal aspect, though the literature reports a series of studies about using various devices and instruments such as scalpels, dermabraders, carbon dioxide lasers, electrocauteries, dermabrasion or cryosurgery[7,8]. For this particular case, we preferred to surgically remove the tumor and to use skin grafting in order to cover the defect, in order to obtain a good cosmetic result.

The final appearance and morbidity were similar with other surgical techniques, therefore the trend should be to remove all suspicious lesions with safety margin. It has to be taken into consideration by surgeons, the fact that the larger the rhinophyma is, the lesser effective the treatment will be in providing a good esthetic result[9,10].

CONCLUSION

Rhinophyma associated with suspicious giant nodule benefits from surgical excision with safety margins, even when the benign or malignant aspect of the tumor is unknown. Basal cell carcinoma (BCC) should be taken into consideration and treated accordingly when the clinical presentation of a rhinophyma associated with a RHISI high score exceeds standard forms, even though, in our case, this unusual clinical appearance proved to be benign.

Conflict of interest: The authors declared no potential conflicts of interest with respect to the authorship, research, results and publication of this article.

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