



# Treatment of a double-giant Rhinophyma with electrocautery and Versajet hydrosurgery system



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## Treatment of a double-giant Rhinophyma with electrocautery and Versajet hydrosurgery system

*Rhinophyma is a disfiguring condition etiologically related to rosacea and due to hypertrophy of the sebaceous glands of the nose.*

*It leads to a progressive thickening of the skin up to the development, in some cases, of severe deformities that result in significant functional deficits and serious cosmetic damage.*

*We report a case of giant rhinophyma consisting of 2 large masses that interfered with feeding and respiration of the patient, and we describe the surgical treatment by resection with electrosurgery and razor-thin saline jet (Versajet Hydrosurgery System). This combined approach is simple and effective for the treatment of severe cases of rhinophyma.*

KEY WORDS: Rhinophyma, Nasal deformity, Versajet hydrosurgery system

## Introduction

Rhinophyma is a disfiguring condition due to an hypertrophy of skin of the nose. It's an uncommon disease, usually affecting mostly Caucasian men in the fifth to eighth decade of life. Different factors have been con-

sidered as possible cause of rhinophyma (infection, hormones, alcohol consumption) but only rosacea has been etiologically confirmed<sup>1</sup>. Rosacea is an affection that starts with redness of the facial skin and proceeds with the development of telangiectasias, persistent erythema, thickening of the skin involving nasal, glabellar, frontal and malar regions. Rhinophyma can be considered a terminal stage of rosacea. The main feature of the disease is an increase in volume of the nose especially in its lower portion<sup>2</sup>. The skin becomes irregular, thicker with concomitant hyperplasia of the sebaceous glands with foul-smelling secretions often associated. Rarely the disease takes on giant proportions and only a few cases of giant rhinophyma have been described in the literature<sup>3</sup>. El-Azhary et al. in 1995<sup>4</sup>, classified rhinophyma into three groups: minor, moderate, and major. In the first

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group there are patients with telangiectasias and slight skin thickening. Patients with greater thickening of the skin and small nodularity represent the second group. The major rhinophyma is characterized by an important skin hypertrophy and enlargement with development of big nodules<sup>5</sup>.

The most severe forms of rhinophyma can cause discomfort with breathing and eating as well as social embarrassment. Nowadays there are several options for treatment of rhinophyma<sup>6</sup>. The most common treatment is surgical shaving with or without the use of split or full-thickness skin grafts or local flaps<sup>7</sup>. Other types of treatment described are: cryosurgery<sup>8</sup>, Argon laser<sup>9</sup>, carbon dioxide laser<sup>9</sup>, electrocautery<sup>10</sup>, and dermabrasion<sup>6</sup>. Various combinations of these techniques have also been reported and there is no agreement on which is the best choice. We present a clinical case of a patient with a giant double rhinophyma treated by surgical excision using electrocautery and then sculpting the nose by a Hydrosurgery device.

## Case Report

An 88 year-old man came to our attention with two huge masses that were dangling from the tip and alae of his nose. The patient reported that the skin of his nose started thickening about 4 years earlier and continued to grow until such disabling dimensions. Topical applications of antibiotic ointment were prescribed by

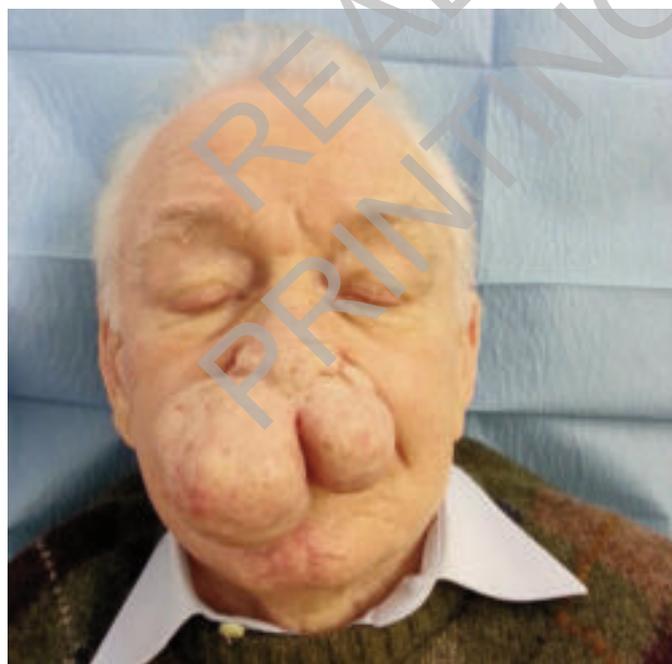


Fig. 1: Preoperative view of the Rhinofibroma.

the patient's general practitioner, but failed to prevent the progression of the rhinophyma. The patient, who initially didn't feel the need to remove this aesthetically unpleasant deformity, decided to seek medical attention because of the increasing discomfort during meals and breathing. The masses in fact interfered with opening of the mouth and caused collapse of the nostrils. The patient also reported foul-smelling discharge and occasional bleeding from the masses.

No relevant comorbidities were reported in the patient's medical records. He suffered of a mild grade of cardiac disease, benign prostatic hyperplasia and moderate alcohol consumption.

In the O.R an infraorbital nerve block was performed and the two main masses were excised using the electric scalpel and were sent for histopathologic examination. Once removed, there was a sudden increase in the patient's oxygen saturation as revealed by the pulse oxymeter. After that we used a razor-thin saline jet (*Versajet Hydrosurgery System*) to remove the remaining exuberant hyperplastic tissue and refine the shape of the nose.

Finally we proceeded with a careful haemostasis and dressed the wound with paraffin gauze embedded in a gentamicin ointment (*Gentalyn*). Two intranasal sponges were applied.

The patient was discharged in the day of the surgery and the wound was re-evaluated 3 days after. No signs of infections were reported and the patient was instructed to clean and dress the wound with paraffin gauze every 2 days. We checked the wound weekly and after 14 days the epithelisation was almost complete.

Definitive histological examination showed the presence of sebaceous glands hyperplasia, oedema and fibrosis of the chorion, chronic inflammation and impetiginisation areas without any foci of carcinoma.

## Discussion

The case we present was a huge rhinophyma consisting of two rounded masses stretching from the nasal alae and dangling in front of the mouth of the patient interfering heavily with breathing and eating and giving an extremely odd appearance to the patient's face.

We performed a gross surgical excision with the electric scalpel that permitted a rapid removal of the masses while controlling the bleeding from the wound.

All the pieces of tissue removed were sent for histopathologic examination since Basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and sebaceous carcinoma (SC) have been previously reported in association with rhinophyma<sup>5-11</sup>.

The *Versajet Hydrosurgery System* device is nowadays a widely used tool for conservative debridement of different types of wounds<sup>12</sup> but, to our knowledge, there are just few reports discussing the use of *Versajet Hydrosurgery*



Fig. 2: Intraoperative view. Left: the bulk of the mass was removed using the electrocautery. Right: shaping of the nose was carried out by using the Versajet Hydrosurgery System.

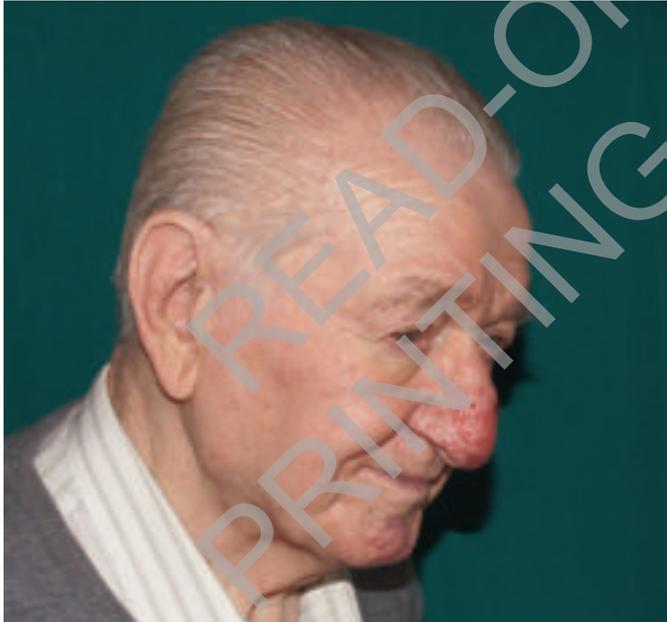


Fig. 3: Post-operative view three weeks after surgery.

System in the treatment of rhinophyma<sup>13</sup>. That system allowed us to complete the removal of the diseased tissue without running the risk of getting too in deep with electro cautery (jeopardizing adnexal elements suitable for

the re-epithelialisation and the cartilage frame) and proved to be a handy procedure to refine the shape of the nose.

### Conclusions

Our patient was very satisfied with the aesthetic results achieved and the improvement of its quality of life. We think that this is a quick and easy treatment of rhinophyma that can be safely performed in a day surgery or even ambulatory surgery setting.

### Riassunto

Il rinofima è una condizione deturpante dovuta ad un ipertrofia delle ghiandole sebacee del naso eziologicamente correlata alla rosacea. Essa porta ad un progressivo ispessimento della cute fino allo sviluppo, in alcuni casi, di gravi deformità che determinano importanti deficit funzionali nonché gravi danni estetici. Noi riportiamo un caso di rinofima gigante composto da 2 grosse lobulazioni che interferivano con l'alimentazione e la respirazione del paziente e ne descriviamo il trattamento chirurgico mediante resezione con elettrobisturi e rimodellamento con bisturi ad acqua *Versajet Hydrosurgery System*. Questo approccio combinato risulta semplice ed efficace per il trattamento di casi gravi di rinofima.

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