



Surgical treatment of rhinophyma: a case series

Tratamento cirúrgico de rinofima: uma série de casos

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ABSTRACT

Rosacea is an inflammatory disease characterized by 4 clinical stages, with phymatous rosacea representing the final stage of progression. Its insidious and chronic course may result in exuberant rhinophyma associated with functional impairment, including nasal obstruction. This study reports a series of 5 cases of exuberant rhinophyma treated with electrosurgery, with satisfactory outcomes achieved after up to four treatment sessions.

Keywords: Rhinophyma; Electrosurgery; Rosacea

RESUMO

A rosácea é uma doença inflamatória caracterizada por quatro estágios clínicos, em que a última fase evolutiva é a rosácea fimatosa. A evolução insidiosa e crônica pode gerar quadros exuberantes de rinofima associado à repercussão funcional, como obstrução nasal. O presente estudo objetiva relatar uma série de cinco casos de rinofima exuberante tratados com eletrocirurgia que tiveram resultado satisfatório após até quatro sessões.

Palavras-chave: Rinofima; Eletrocirurgia; Rosácea

Case Report

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INTRODUCTION

Rosacea is a chronic inflammatory disease characterized by 4 clinical stages, with phymatous rosacea representing the final stage of progression.¹ This condition is characterized by hyperplasia of the sebaceous glands and connective tissue, resulting in marked skin hypertrophy; when it affects the nasal region, it is referred to as rhinophyma.² Rhinophyma is relatively uncommon and occurs more frequently in men aged > 50 years.³

Its insidious and chronic progression may result in exuberant disease associated with functional impairment, including nasal obstruction, as well as substantial aesthetic, social, and psychological effects.³ There is no established gold-standard treatment for rhinophyma. Therapeutic approaches reported in the literature include surgical techniques, carbon dioxide (CO₂) laser therapy, trichloroacetic acid peel, and systemic treatment with retinoids and antibiotics. However, surgical treatment has been described as a more definitive approach for extensive disease.⁴

Therefore, this study aimed to report a series of 5 cases of exuberant rhinophyma treated with electrosurgery, with satisfactory outcomes.

CASE REPORT

Five patients with rhinophyma followed at the dermatology department underwent electrosurgery. The surgical procedure was performed in all patients as follows:

Local antisepsis with 2% chlorhexidine digluconate.

Anesthetic block with 2% lidocaine with epinephrine administered bilaterally in the infraorbital nerve region, combined with local infiltration over the nasal dorsum.

A low-frequency monopolar electrosurgical unit (Wave-tronic® 120 Nano) was used in cut mode at a power setting of 20 W. A straight loop electrode, 3–5 mm in diameter, was used to remove the phymatous tissue, and a 3–5-mm ball electrode was used for hemostasis and contouring of the nose.

Immediately after the procedure, restoration of the nasal contour was observed, with preservation of the nasal architecture and a uniform raw surface without areas of carbonization or active bleeding, indicating adequate hemostasis (Figure 1).

An occlusive petrolatum dressing was then applied, and the wound was allowed to heal by secondary intention. In addition, oral cephalexin 500 mg every 6 hours for 7 days was



FIGURE 1: A - Immediate postoperative appearance after the first session of electrosurgery for rhinophyma. B - Immediate postoperative appearance after the third session of electrosurgery, demonstrating restoration of the nasal contour, preservation of the osteocartilaginous framework, and adequate hemostasis.

prescribed to prevent secondary infection, along with collagenase/chloramphenicol ointment (0.6 U/g + 0.01 g/g) once daily until tissue re-epithelialization.

Case 1: A 60-year-old man with no comorbidities had a 16-year history of rhinophyma that had progressed to nasal obstruction. He underwent 4 sessions of electrosurgery at intervals of 3–4 months, resulting in satisfactory aesthetic and functional outcomes of the nasal dorsum (Figure 2).

Case 2: A 71-year-old man with no comorbidities and a 3-year history of rhinophyma underwent 2 sessions of electrosurgery 3 months apart, with a favorable outcome (Figure 3).

Case 3: A 67-year-old man with a 6-year history of phymatous rosacea underwent 2 surgical treatment sessions and achieved an excellent outcome (Figure 4).

Case 4: A 63-year-old man with hypertension and a 5-year history of rhinophyma underwent 2 sessions of electrosurgery involving the nasal ala, with an interval of 5 months between procedures, and achieved a satisfactory outcome (Figure 5).

DISCUSSION

Rosacea is a chronic inflammatory skin disease with a multifactorial pathogenesis. The condition involves both immune system changes and neurovascular dysfunction and frequently impairs patients' quality of life.^{3–6} Epidemiologically, rosacea affects approximately 5% of the global population, predominantly individuals with lighter skin phototypes (Fitzpatrick I and II), and is more common in women.^{5,6} Rhinophyma, however, has



Figure 2. Clinical appearance before and after surgical treatment of rhinophyma with 4 surgical sessions.



Figure 3. Clinical appearance before and after surgical treatment of rhinophyma with 2 surgical sessions.



Figure 4. Clinical appearance before and after surgical treatment of rhinophyma with 2 surgical sessions.



FIGURE 5: Clinical appearance before and after surgical treatment of rhinophyma involving the nasal ala with 2 surgical sessions.



FIGURE 6: Clinical appearance before and after surgical treatment of rhinophyma with 3 surgical sessions.

a distinct epidemiologic profile, occurring primarily in White men aged >50 years, with reported male-to-female ratios ranging from approximately 5:1 to 30:1. Cases in men of Asian or African American ancestry have been reported but are uncommon.⁵⁻⁷

Rhinophyma is considered pathognomonic of rosacea and may clinically present as skin thickening associated with erythema, edema, and telangiectasia. As the condition progresses, proliferation of fibrous tissue and sebaceous glands occurs, accompanied by accentuation of follicular openings and other structures of the nasal region.⁵⁻⁸

Several therapeutic approaches for rhinophyma have been described in the literature, including laser therapy and oral

isotretinoin; however, surgical excision remains a mainstay of treatment.^{5,6,8} In this respect, electrosurgery represents an effective treatment option for rhinophyma because of its low cost, favorable safety profile, and relatively limited tissue trauma.^{6,9,10} Moreover, this modality meets the objectives and procedural steps of excisional treatment of rhinophyma described by Oliveira *et al.*, including removal of excess phymatous tissue, refinement of the nasal contour, achievement of hemostasis, and provision of appropriate postoperative wound care, supporting electrosurgery as one of the main treatment modalities for this condition.⁵

Major complications documented with this therapeutic modality include thermal injury to the surrounding tissue

and the risk of aesthetically unfavorable scarring. Nevertheless, reported benefits include reduced tissue trauma, greater postoperative satisfaction, and improvements in functional outcomes and quality of life.^{6,7,10} The cases described in this series are consistent with the literature, demonstrating excellent aesthetic and functional outcomes, as well as low treatment costs and high patient satisfaction. These findings are consistent with the favorable outcomes of similar surgical treatments reported in the medical literature.^{2,4,7,10}

CONCLUSION

Electrosurgery is an effective treatment option for rhinophyma, particularly in exuberant cases, such as those described in this series, and can provide high levels of patient satisfaction with both aesthetic and functional outcomes.

Case 5: A 68-year-old man with hypertension and a 5-year history of rhinophyma underwent 3 surgical sessions at 4-month intervals and showed a favorable clinical response (Figure 6). ●

REFERENCES:

1. Chowdhary S, Alexander A. Giant rhinophyma. *BMJ Case Rep.* 2021;14:e239860.
2. Luppino I, Lacarrubba F, Verzi AE, Micali G. The clinical spectrum of phyma: a case report of rhino-metophyma and review of the literature. *Skin App Disord.* 2025;11(6):515-9.
3. Benwadih S, Bouksirat M, Dani B, Boulaadas M. Management of rhinophyma. *J Surg Case Rep.* 2025;2025(5).
4. Benyo S, Saadi RA, Walen S, Lighthall JG. A Systematic Review of Surgical Techniques for Management of Severe Rhinophyma. *Craniofac Trauma Reconstr.* 2021;14(4):299-307
5. Oliveira CMM, Almeida LMC, Bonamigo RR, Lima CWG, Bagatin E. Consensus on the therapeutic management of rosacea - Brazilian Society of Dermatology. *An Bras Dermatol.* 2020;95:53-69.
6. Dick MK, Patel BC. Rinofima. Em: StatPearls [Internet]. Ilha do Tesouro (FL): StatPearls Publishing; 2025.
7. Kondo RN, Borges Junior C, Leugi LG, Gubert M, Scalone FM. Eletro-cirurgia em rinofima: relato de dois casos. *Surg Cosmet Dermatol.* 2024;16:e20240312.
8. Tan J, Almeida L, Bewley A, Cribier B, Dlova NC, Gallo R, et al. Updating the diagnosis, classification and assessment of rosacea: recommendations from the global ROSacea Consensus (ROSCO) panel. *Br J Dermatol.* 2017;176:431-8.
9. Cardoso TA, Yang JJH, Roscoe EWT. Electrosurgery in the treatment of giant rhinophyma: a case report. *Surg Cosmet Dermatol.* 2015;7(3 Supl 1):S50-2.
10. Al Hamzawi, Nabeel K, Al Baaj, Salih M. Large rhinophyma treated by surgical excision and electrocautery. *Case Rep Surg.* 2019;2395619.

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