

# Sharp Excision and Electrocautery Dermabrasion in the Treatment of Rhinophyma

Jake K. Cartwright, Fulton A. Robinson, Natalie R. Dixon, Alicia R. Billington
Division of Plastic Surgery, Department of Surgery
Quillen College of Medicine, East Tennessee State University



## Objectives

- Describe rhinophyma and its pathophysiology.
- Describe a case of rhinophyma and available treatment options.
- Emphasize the usefulness of sharp excision and electrocautery dermabrasion in treatment.

#### Introduction

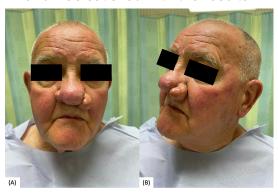
- What is rhinophyma?
- Due to long-standing, chronic acne rosacea
- Chronic inflammation and release of vasoactive substances (substance P)
- Hypertrophy and hyperplasia of sebaceous glands<sup>1</sup>
- Underlying pathophysiology remains unclear

### Case Presentation

- 79-year-old male
- Referred for evaluation of a lesion to the nose
- Growth over 10 years, recurrent infections, and resulting embarrassment (Figure 1A, Figure 1B)
- Diagnosed with rhinophyma
- Left-sided alar mass

#### Case Presentation Continued

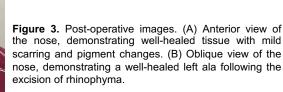
- Loop electrocautery dermabrasion was performed to excise diseased area.
- Alar mass was excised with a #15 blade followed by loop electrocautery for contouring (Figure 2A, Figure 2B).
- Significant sebaceous material was encountered.
- Final pathology was consistent with an epidermal inclusion cyst.
- Mild hypopigmentation at three months post-operation (Figure 3A, Figure 3B) and was satisfied with the results.



**Figure 1.** Pre-operative images. (A) Anterior-posterior and (B) oblique views of the nose, demonstrating significant rhinophyma and left-sided alar mass.



Figure 2. Intra-operative images. (A) Anterior view of the nose post-loop electrocautery dermabrasion. (B) Oblique view of the nose post-sharp excision of left alar mass and subsequent contouring with loop electrocautery dermabrasion.



## Discussion

- Surgical methods (sharp excision, electrocautery dermabrasion, CO2 laser).<sup>2</sup>
- Advantages of sharp excision (margins, lack of thermal damage, cost)
- Advantages of electrocautery dermabrasion (quick, hemostasis)
- Disadvantages

#### Conclusion

- Rhinophyma is a disease of the sebaceous glands that can result in significant disfigurement.
- Surgical intervention with sharp excision and loop electrocautery provides an excellent treatment option.
- Patients must be counseled on the risks of wound healing and pigment change complications.
- Moist wound for optimized healing

## References

- 1. Wilkin J, Dahl M, Detmar M, Drake L, Feinstein A, Odom R, Powell F. Standard classification of rosacea: Report of the National Rosacea Society Expert Committee on the Classification and Staging of Rosacea. J Am Acad Dermatol. 2002 Apr;46(4):584-7.
- 2. Benyo S, Saadi RA, Walen S, Lighthall JG. A Systematic Review of Surgical Techniques for Management of Severe Rhinophyma. Craniomaxillofac Trauma Reconstr. 2021 Dec;14(4):299-307.