Case Report

Surgical Management of Rhinophyma Using Split-Thickness Skin Grafting: A Case Series

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Abstract

Background: Rhinophyma is the phymatous manifestation of rosacea and can cause progressive nasal skin hypertrophy, nodularity, cosmetic deformity and, in advanced cases, airway obstruction. Surgical treatment is often required for established tissue overgrowth. **Material and Methods:** This case series describes two consecutive men with clinically diagnosed rhinophyma who underwent surgical excision at our tertiary care center at GGSMCH, Faridkot. Clinical features, operative approach and documented postoperative outcomes are reviewed here from the available case records. **Results:** We received two patients with clinically diagnosed rhinophyma who underwent surgical excision with coverage using STSG without the need of flap at our tertiary care center. The patients included two men aged between 60 to 70 years with clinically diagnosed rhinophyma. Patient presented with chronic localized swelling, cosmetic disfigurement, and functional impairment in breathing. Complete surgical excision was achieved in both the cases and resultant wound was covered using STSG with preservation of cartilage and without the need of flap coverage. During follow-up, both patients reported complete resolution of cosmetic disfigurement due to enlarged, bulbous, irregular nose, with no recurrence or significant post-op nasal deformity. **Conclusion:** Excision with STSG may be a useful reconstructive option for selected patients with extensive superficial rhinophyma when the underlying nasal framework is preserved and the wound bed is suitable for grafting. These observations are limited by the small sample and the absence of specified follow-up duration and quantitative outcome measures.

Keywords: Rhinophyma, rosacea, surgical excision, split-thickness skin graft, nasal reconstruction, case series.

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Introduction

Rhinophyma is the advanced phymatous manifestation of rosacea, characterized by progressive thickening, sebaceous gland hyperplasia, fibrosis and nodular distortion of the nasal skin. The nose may become enlarged, bulbous and irregular, with prominent sebaceous openings and telangiectasia. In severe cases, distortion of the nasal tip and alae can narrow the external nasal apertures and impair breathing. Rhinophyma is reported predominantly in middle-aged and older men.[1–5]

Medical treatment may control inflammatory features of rosacea but generally does not reverse established fibrotic and sebaceous tissue overgrowth. Procedural options include tangential excision, electrosurgery, dermabrasion, carbon dioxide laser ablation and radiofrequency, techniques. The choice depends on disease extent, surgeon experience, equipment availability, functional symptoms and reconstructive requirements. No single technique is appropriate for every patient.[1,4–7]

Following excision, the defect may be managed by secondary-intention healing, skin grafting or flap reconstruction. Skin grafting can provide immediate coverage of a broad superficial defect when the underlying framework is preserved and an appropriate vascularized wound bed is available; potential limitations include differences in colour and texture and secondary contraction. Published reports describe graft-based reconstruction as one option for selected cases.[2,3,9,10] This case series describes two patients treated surgically, with emphasis on excision, STSG coverage as recorded in the case-series summary, and the reported clinical outcomes.

Case Series

This descriptive case series includes two consecutive patients with clinically diagnosed rhinophyma treated at our tertiary-care center. The available manuscript records were reviewed for age, sex, duration of symptoms, distribution of hypertrophy, nasal airway symptoms, surgical approach and postoperative outcome. The diagnosis was clinical. Standard preoperative photographs were taken.

Case 1

A 62-year-old man presented with a two-year history of progressively enlarging swelling over the nose, associated with thickening and nodularity of the nasal skin and cosmetic

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deformity. He reported difficulty in breathing for six months and a history of recurrent facial redness and flushing. He had previously received topical treatment for a diagnosis of rosacea, although the treatment records were not available.

Examination showed diffuse enlargement and thickening of the nasal skin with irregular nodular hypertrophy, erythema and prominent sebaceous openings. The dorsum, tip, alae and columella were involved. There was no ulceration, bleeding or discharge. Nasal airway assessment demonstrated moderate obstruction. Regional lymph nodes were not palpable.

The lesion was excised under general anesthesia and STSG was placed over the resulting defect, with preservation of the underlying cartilage and nasal contour. The postoperative course was described as uneventful, with symptom improvement and no recurrence during the reported follow-up. The pre-op and post-op clinical appearances are shown in [Figure 1].



Figure 1: Pre op and Post op clinical images of 62 year old man with Rhinophyma. Lesion is excised and covered with STSG

Case 2

A 63-year-old man presented with an approximately 18-month history of progressive nasal skin thickening and enlargement, resulting in a bulbous and irregular nasal appearance. He reported redness and prominence of pores and telangiectatic vessels. He did not report recurrent flushing, papules, nasal obstruction, significant pain, bleeding, ulceration or crusting.

Examination showed an enlarged, broad, bulbous nose with coarse, thickened and irregular skin involving the dorsum, tip, alae and columella. Nasal airways were patent bilaterally. There were no reported signs of persistent facial flushing or ocular involvement, and regional lymph nodes were not palpable.

Tangential excision was performed, with the hypertrophied tissue removed layer by layer while preserving deeper viable tissue and the underlying nasal framework and STSG was placed over resulting wound. The postoperative course was uneventful, with no documented recurrence during the reported follow-up.

Pre op and Post op images are shown in [Figure 2].

Clinical features, diagnostic evaluation, Surgical management and post op status is summarized in [Table 1].



Figure 2: Pre op and post op images of 63-year-old male with Rhinophyma.

Table 1: Clinical characteristics, diagnosis evaluation, Surgical Management& outcomes of 2 patients.

Case	Age/Sex	Anatomical site	Symptoms	Imaging	Surgical approach	Recurrence	Scarring
1	62y/M	Dorsum of nose involving tip, alae, columella	2 years	Clinical diagnosis	Tangential excision with STSG	No	No
2	63y/M	Dorsum of nose involving tip, alae, columella	18months	Clinical diagnosis	Tangential excision with STSG	No	No

Discussion

Rhinophyma is generally a benign condition, though advanced disease can result in considerable cosmetic deformity, psychological stress, and in severe cases, functional impairment due to narrowing of the external nasal apertures. The present case series describes two patients, aged 62 and 63

years, with clinically diagnosed rhinophyma, who were managed surgically by the excision of the hypertrophic tissue followed by STSG. Both patients demonstrated significant enlargement and irregularity of the nasal skin. Surgical treatment was undertaken with the objective of removing the excessive hypertrophied tissue, restoring normal nasal contour, improving the external appearance of the nose, and providing stable wound coverage.

Rhinophyma predominantly affects middle-aged and elderly men and is more common in men than women. The age and gender of two patients in our series, 62 and 63 years, male, is consistent with the typical age group, gender in which phymatous changes become clinically evident.[4,7,9]

In our patients, the hypertrophied tissue was surgically excised with careful preservation of the underlying nasal framework. Excision was performed in a controlled fashion to decrease the bulky tissue and recreate the normal surface contour. One of the important advantages of surgical excision is that it permits direct visualization and progressive contouring of the nose.[1]

The distinctive feature of the present series is the use of STSG following excision. Selig and colleagues described complete excision with single-stage reconstruction using a collagen–elastin matrix and a non-meshed STSG, supporting the feasibility of graft-based coverage in selected defects.[2] A more recent case report also described successful skin-graft reconstruction after excision.[3] Reports and reviews of rhinophyma management describe several reconstructive choices, including secondary healing, grafting and flap coverage, each with distinct advantages and limitations.[1,4,6,7,9,10]

In both our patients, STSG allowed the extensive post-excisional defect to be covered without the need for more complex local or free flap reconstruction. This was particularly advantageous because the underlying nasal framework remained intact and the defect was predominantly superficial. The graft provided a biological covering for the exposed vascularized wound bed while allowing the careful sculpted nasal contour to be maintained.

An important advantage of STSG in rhinophyma is that reconstruction can be performed immediately after adequate excision and contouring. STSG also offers several practical advantages in elderly patients, as it avoids extensive additional dissection in already operated nasal region and generally has lower donor site and operative morbidity than more complex flap reconstruction.

However, STSG has several limitations, like difference in color, texture, thickness, and pigmentation between graft and surrounding nasal skin. Graft contraction can also occur, thus emphasizing the importance of appropriate patient selection and careful graft harvesting.

In the present two cases, combination of aggressive but controlled excision, preservation of underlying nasal framework, restoration of nasal contour, and immediate STSG coverage resulted in satisfactory outcome. Thus, STSG provides early wound coverage, facilitating healing, decreased duration of open wound care, and allowing surgically restored nasal contour to be maintained.

Conclusion

Rhinophyma can cause significant cosmetic and functional deformity in elderly patients. In our two cases, surgical excision followed by STSG provided effective removal of hypertrophic tissue, stable wound coverage, and preservation of the nasal contour. This approach is a simple and effective reconstructive option for extensive rhinophyma when the underlying nasal framework is preserved.

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Conflicts of interest

There are no conflicts of interest.

References

1. Benyo S, Saadi RA, Walen S, Lighthall JG. A systematic review of surgical techniques for management of severe rhinophyma. Craniomaxillofac Trauma Reconstr. 2021;14(4):299-307. doi:10.1177/1943387520983117.
2. Selig HF, Lumenta DB, Kamolz LP. The surgical treatment of rhinophyma—complete excision and single-step reconstruction by use of a collagen-elastin matrix and an autologous non-meshed split-thickness skin graft. Int J Surg Case Rep. 2013;4(2):200-203. doi:10.1016/j.ijscr.2012.11.003.
3. Adwal A, Suleiman AM, Ahmed AM, Adwal M, Al Gehadi MYH, Al-Badri SG. Rhinophyma treated by skin graft: a case report. J Surg Case Rep. 2025;2025(8): rjaf248. doi:10.1093/jscr/rjaf248.
4. Krausz AE, Goldberg DJ, Ciocon DH, Tinklepaugh AJ. Procedural management of rhinophyma: a comprehensive review. J Cosmet Dermatol. 2018;17(6):960-967. doi:10.1111/jocd.12770.
5. Chauhan R, Loewenstein SN, Hassanein AH. Rhinophyma: prevalence, severity, impact and management. Clin Cosmet Investig Dermatol. 2020; 13:537-551.
6. Fink C, Lackey J, Grande DJ. Rhinophyma: a treatment review. Dermatol Surg. 2018;44(2):275-282. doi:10.1097/DSS.0000000000001406.
7. Sadick H, Goepel B, Bersch C, Goessler U, Hoermann K, Riedel F. Rhinophyma: diagnosis and treatment options for a disfiguring tumor of the nose. Ann Plast Surg. 2008;61(1):114-120. doi:10.1097/SAP.0b013e31815f12d2.
8. Rohrich RJ, Griffin JR, Adams WP Jr. Rhinophyma: review and update. Plast Reconstr Surg. 2002;110(3):860-869. doi:10.1097/00006534-200209010-00023.
9. Torresetti M, Scalise A, Di Benedetto G. Acellular dermal matrix for rhinophyma: is it worth it? A new case report and review of literature. Int J Surg Case Rep. 2019; 60:147-151. doi:10.1016/j.ijscr.2019.05.013.
10. Jaramillo MJ, Stewart KJ, Kolhe PS. Phenytoin induced rhinophyma treated by excision and full thickness skin grafting. Br J Plast Surg. 2000;53(6):521-523. doi:10.1054/bjps.2000.3377.