

Case Reports

Authors:

Flavia Estrela Maroja Marinho¹
 Marcela Duarte Benez Miller²
 Fatima Satomi Nishimori¹
 Pedro Etienne Arreguy Rodrigues Silva¹
 Maria Shirlei Chaves Loureiro do Carmo³

¹ Dermatology Resident Physician, Hospital Federal da Lagoa – Rio de Janeiro (RJ), Brazil

² Collaborator Physician, Dermatology Department, Hospital Federal de Bonsucesso (HFB) – Rio de Janeiro (RJ), Brazil

³ Preceptor, Dermatology Department, Hospital Federal da Lagoa

Correspondence:

Dr. Flavia Estrela Maroja Marinho
 R. Alzira Brandão, 170, apt. 201 – Tijuca
 Cep: 20520-070 - Rio de Janeiro (RJ), Brazil
 E-mail: flavia_estrela@hotmail.com

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Reconstruction of the nasal dorsum with the Rieger flap following excision of nodular basal cell carcinoma

Reconstrução de dorso nasal com retalho de Rieger após excisão de carcinoma basocelular nodular

ABSTRACT

Basal cell carcinoma is the most common skin cancer and can result in significant morbidity if not completely excised. The present article describes a case of nasal reconstruction using the Rieger flap, after the excision of a basal cell carcinoma, which yielded good aesthetic results. The authors have chosen this flap due to the fact that the donor area contains an abundant supply of tissue to cover surgical wounds, which is of a good color and texture for the upper region of the nose.

Keywords: carcinoma, basal cell; reconstructive surgical procedures; nose neoplasms; surgical flaps.

RESUMO

O carcinoma basocelular é o câncer de pele mais frequente e pode resultar em significativa morbidade se não for completamente excisado. Descreve-se caso de reconstrução nasal após exérese de carcinoma basocelular com retalho de Rieger com bom resultado estético. Os autores optaram por esse retalho, visto que a área doadora contém fonte abundante de tecido para a cobertura de feridas cirúrgicas, boa coloração e textura para a região superior do nariz.

Palavras-chave: carcinoma basocelular; procedimentos cirúrgicos reconstrutivos; neoplasias nasais; retalhos cirúrgicos.

INTRODUCTION

The basal cell carcinoma (BCC) is primarily located in areas exposed to sunlight and is the most common type of skin cancer. It can result in significant morbidity if not completely excised.¹ On the other hand, nasal skin defects are challenging for surgeons due to reconstruction requirements, and the fact that color irregularity, texture, and skin thickness are all easily visible.^{2,3} The integrity of the aesthetic subunits of the nose (tip, dorsum, soft triangle, columella and lateral walls) is critical to maintaining the harmony of facial features⁴. In the dorsum of the nose, studies show good aesthetic and functional results using the Rieger's flap.^{4,6}

CASE REPORT

A 71-year-old male patient (a retired electrician), skin type I, with a history of sun exposure and prior excision of multiple BCCs sought care at the dermatologic service. On clinical examination, it was possible to observe a nodule of approximately 2 cm in diameter on the nose, which had been in development for about 2 years (Figure 1).



FIGURE 1: Rieger's flap surgical marking



FIGURE 4: Immediate post-operative results

METHOD

Using dermoscopy it was possible to view arboriform telangiectasias crossing the lesion and an absence of pigment. The histology of an incisional biopsy revealed nodular BCC. A decision was then made for surgical treatment under local anesthesia, excision of the lesion with an initial margin of 4 mm and intra-operative control of margins by a pathologist. After the evaluation of surgical margins that were free of neoplasia, the reconstruction of the nasal dorsum was carried out with the Rieger's flap (Figures 2 to 4). Post-operative care included: placement of drain, pressure dressing, and oral antibiotics therapy with cephalexin. The removal of the drain, the cleansing of the surgical wound and the application of a dressing with sterile micropored adhesive plaster were carried out on the following day.

RESULTS

After seven days, the stitches began to be removed alternately. All stitches were removed within 2 weeks. The patient was followed up with for 10 months and, up until the time the present paper was submitted, no clinical or dermoscopic recurrence of the lesion had taken place (Figures 5-7). Furthermore, a good aesthetic outcome was achieved.



FIGURE 2: Excision of the basal cell carcinoma lesion



FIGURE 3: Positioning of the myocutaneous flap



FIGURE 5: Results after 6 months



FIGURE 6: Results after 6 months

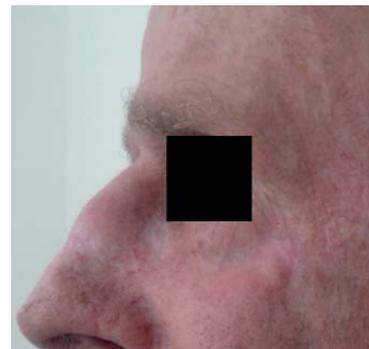


FIGURE 7: Results after 6 months

DISCUSSION

Nodular BCC can reach great dimensions and may deepen, causing considerable tissue damage. The nose is the most characteristic feature of the face and any change in its shape, color, or skin becomes obvious. Thus, the surgeon must choose the reconstruction method that provides the best possible aesthetic result.^{4,6}

The Rieger's flap was described by its eponym in 1967, as a good option for reconstruction of defects in the nasal tip of up to 2 cm in diameter.^{4,5} Since then, it has been described in the literature with slight variations and multiple new nomenclatures, such as glabellar flap, extended glabellar flap and dorsal nasal flap.^{2,3} It is a rotation/advancement flap used for defects in the middle and lower third of the nose. It resembles a rhomboid flap that takes advantage of the glabellar excess skin, making it especially suitable for elderly patients.⁵

The skin is incised from the lateral portion of the defect, running through the nasofacial fold to reach the glabellar region. The incision is subsequently drawn down along the contralateral side up to the eyebrow region. The flap should be musculocutaneous. After proper detachment, the flap is rotated/advanced inferiorly, and the glabellar defect sutured primarily.⁵

The authors chose this flap due to the fact that the patient was elderly and had excess tissue in the donor area. Despite the tumor's extent and location, the use of this flap allowed the excision of the entire lesion with a sufficient safety margin, and made it possible to maintain the harmony of the nasal unit. ●

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