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Bilobed Flap for Reconstruction in Nasal Tip of Basal Cell Carcinoma

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KEYWORDS
Basal Cell Carcinoma, Nasal Tip, Bilobed Flap

ABSTRACT:

Introduction: Basal cell carcinoma (BCC) is a locally aggressive, slow-growing tumor that arises from the basal layer of the epidermis. The most important location of facial skin cancer is in the nose area. This is due to the cumulative exposure to the sun's rays in that area. Standard surgical excision remains the "gold standard" for primary BCC lesions, as it is capable of complete removal of the tumor, and can take samples for histopathological analysis to ensure that the tumor has been completely excised. The bilobed flap is a local transposition flap used primarily for the reconstruction of small to medium sized nasal skin defects.

Objectives: A case involving a 55-year-old female was referred to Pelamonia Hospital, Makassar with mass in nasal tip. This patient complained of mass in nasal tip since 1 year ago.

Methods: Case Report, A case involving a 55-year-old female was referred to Pelamonia Hospital, Makassar with mass in nasal tip. This patient complained of mass in nasal tip since 1 year ago. The mass initially small like a mole, gradually enlarged. The patient's condition was stable, with nasal tip mass, fragile, and easy to bleed were found during examination. No congestion and the mucosa is normal on anterior rhinoscopy findings.

Results: Biopsy findings from nasal tip revealed it is basal cell carcinoma. A contrast head MSCT showed soft tissue mass in the right nasal cavity that may destroy the right inferolateral cartilage. No hypo/hyperdense lesions in the cerebral parenchyma.

Conclusions: The patient was then treated with wide excision followed by bilobed flap on her nasal tip. The surgery was successful and the patient managed to go home after day 3 post-surgery. Post operation histopathologycal finding concludes it was basosquamous cell carcinoma.

1. Introduction

Based on WHO classification, basal cell carcinoma can be classified into the following subtypes: Superficial basal cell carcinoma, Nodular (solid) basal cell carcinoma, Micronodular basal cell carcinoma, Infiltrative basal cell carcinoma, Fibroepithelial basal cell carcinoma (Pink tumor), Basal cell carcinoma with adnexal differentiation, Basosquamous carcinoma, Keratotic basal cell carcinoma.[4,5]

The bilobed flap is a localized transposition flap used primarily for the reconstruction of small to medium sized nasal skin defects, although it can also be applied to other areas of the body. This technique was first described in 1918 by Esser for use in nasal tip reconstruction. The original flap used a 180-degree rotational arc and was based on the second lobe superiorly, towards the glabellar region. In 1989, Zitelli developed the technique by describing the limitation of the total rotational arc between 90 and 110 degrees. This Zitelli variant is the most commonly used modification until today.[3,6]

A bilobed flap is a double transposition flap, where the first lobe serves to fill the primary defect, and the second lobe fills the defect vacated by the first lobe ("secondary defect"). This approach distributes tension over a wider area of tissue, but at the expense of incision length and scar tissue in a complex arc pattern, making postoperative tidiness and cleanliness challenging from an aesthetic point of view.[3]

With a bilobed flap, a surgical operator may be able to close the nasal tip defect without or with minimal distortion of the surrounding tissue and transfer of skin of the same color and texture. Therefore, this technique is expected to be applied randomly or axially, structured in a simple (skin) or complex (fasciocutaneous and myocutaneous) structure, and easy to perform. Given

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these advantages, bilobed flaps have been applied to other areas of the face, neck, trunk, and limbs.[3]

2. Case Report

A case involving a 55-year-old female was referred to Pelamonia Hospital, Makassar with mass in nasal tip. This patient complained of mass in nasal tip since 1 year ago. The mass initially small like a mole, gradually enlarged. On anamnesis, the mass is not accompanied by pain, no history of epistaxis. Patient is a housewife. History of exposure to the sun about 1-2 hours a day, no habit of eating salted fish. No history of smoking and eating preservatives foods. Mass characteristics are hyperemic, brittle, bleeds easily, and with diameter of 3x2cm. The patient's condition was stable, with nasal tip mass, fragile, and easy to bleed were found during examination. No congestion and the mucosa is normal on anterior rhinoscopy findings. Patient underwent biopsy examination from her nasal tip mass. The biopsy result revealed it is basal cell carcinoma.

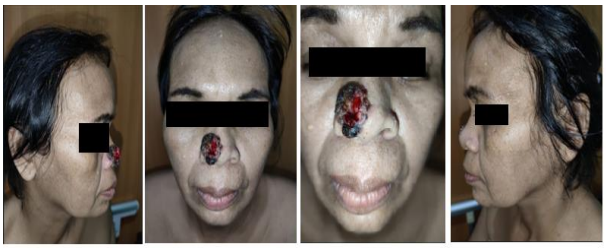

Figure 1. Appearance and physical examination of the patient

A contrast head MSCT showed soft tissue mass in the right nasal cavity that may destroy the right inferolateral cartilage. No hypo/hyperdense lesions in the cerebral parenchyma.

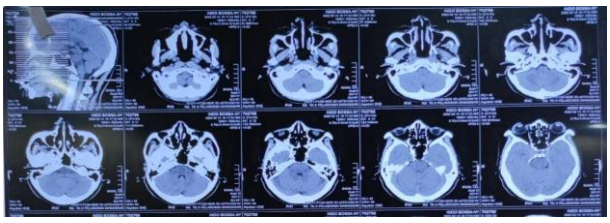

Figure 2. Contrast Head MSCT.

The patient was diagnosed with basal cell carcinoma of nasal tip. The patient was then treated with wide excision followed by bilobed flap on her nasal tip. The surgery was successful and the patient managed to go home after day 3 post-surgery. Post operation histopathologycal finding concludes it was basosquamous cell carcinoma.

Figure 3. Intraoperative

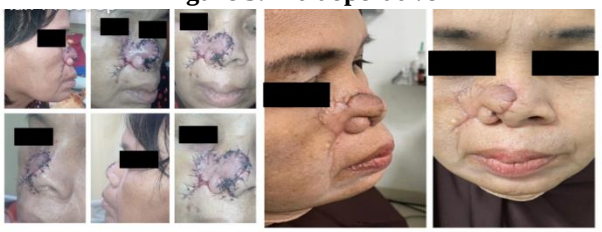

Figure 4. Postoperative appearance and physical examination day 1 and 50.

3. Discussion

Basal cell carcinoma originates from undifferentiated pluripotent epithelial germ cells present in the interfollicular basal cell layer of the epidermis and in the bulging areas of hair follicles. BCC accounts for 75% of all skin cancers and is the most common malignant tumor in the white population. The median lifetime risk for white individuals for BCC is about 30%.[4,5]

In this patient, the post histological finding revealed it was basosquamous cell carcinoma (BSC). BSC is usually a slow growing tumor and the low rate of correct BSC diagnosis may be due to the small biopsy specimen. In addition, BSC has a non-specific clinical presentation and the diagnosis can be made only after biopsy. BSC is one of the histopathological types of basal cell carcinoma, where it is a rare epithelial neoplasm with characteristics of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) and is connected by a transitional area.[7]

In this patient, she was treated with wide excision followed by bilobed flap on her nasal tip. The surgery was successful and the patient managed to go home after day 3 post-surgery.

4. Conclusion

BCC has mixed histopathological characteristics of both basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). BCC and SCC display characteristic histopathology and behaviour; on the other hand, BsC is a rare tumour, which has variable morphology and displays less predictable behaviour. Following diagnosis, surgery plays a key role in treatment when it

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is possible to operate. Full excision with tumour-free margins is essential. Due to the increased metastatic potential of the tumour, radiographic evaluation should be considered to fully investigate for metastases.

The bilobed flap is a versatile and resolution flap. Its applicability in different etiologies and different anatomical sites provides various forms of reconstruction with very satisfactory results. The main advantages of this flap include the low rates of complication, easy reproducibility, the similarity in color and texture in relation to the site of the defect, and the possibility of designing it in different sizes and tissue processes. This technique considered to be the first choice in the closure of various defects, even in areas with low skin compliance, especially in nasal region

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