

## Case Report

# Basal cell carcinoma of the ala of nose: a case report

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### ABSTRACT

Basal cell carcinoma (BCC) of nose is common with potential of local recurrence and high risk features. We are reporting a case of BCC on the right ala of nose in an elderly female patient hailing from rural background, who came to our OPD for cosmetic outcome. She was treated with wide local excision with nasolabial flap reconstruction. The tissue when sent for HPE came up with BCC with margin involvement. Hence she was sent to chemoradiotherapy after 3 weeks of surgery, after complete wound healing.

**Keywords:** Basal cell carcinoma, Nasolabial flap reconstruction, Chemoradiation

## INTRODUCTION

Basal cell carcinoma (BCC) is the most common non-melanoma skin cancer of this region. The nose has a 2.5 times higher risk of recurrence of BCC after surgical excision. Localization on the nose is also considered a feature of high-risk BCC due to its anatomical peculiarities and problems in pre-surgical identification of tumour margins.<sup>1</sup>

Microscopically, BCC can be classified into indolent-growth subtypes (nodular and superficial) and aggressive-growth subtypes (morpheaform, infiltrative, micronodular and basosquamous). Additionally, uncommon variants have been described in the literature including adamantinoid, granular, clear cell, and BCC with matrical differentiation (BCCMD). If left untreated, BCC can invade locally causing significant tissue destruction while metastatic basal carcinoma is extremely rare.<sup>2</sup>

## CASE REPORT

A 78 year old female patient farmer by occupation, resident of Medak presented with history of swelling over right side of nose since 2 years, which was insidious in

onset, peanut sized to start with and gradually progressed to present size. Swelling was associated with itching. There was no history of discharge or bleeding associated with swelling. Swelling was not associated with pain. No history of trauma. No history of nasal obstruction, nasal discharge, epistaxis. No history of similar complaints in past. Known case of hypertension (on medication tablet telma H). Not a known case of diabetes mellitus, thyroid disease, asthma, epilepsy, tuberculosis.

No past surgical history. No history of treatment taken for the same. No known drug allergies. No significant family history. She takes mixed diet, with appetite being normal, had adequate sleep, with regular bowel bladder movements. No history of addictions.

### On general examination

Patient was moderately built and nourished. No evidence of pallor, icterus, clubbing, cyanosis, pedal edema and lymphadenopathy.

### On local examination

Swelling was 3×1 cm nodular firm growth over right ala

of nose which was roughly oval black in colour, slightly tender, did not bleed on touch with surrounding induration. There were no palpable lymph nodes on clinical examination. Patient underwent wide local excision with naso labial flap reconstruction. Post-operative period was uneventful. Histopathology reports suggestive of BCC is the most common non-melanoma skin cancer of this region. The nose has a 2.5 times higher risk of recurrence of BCC after surgical excision. Localization on the nose is also considered a feature of high-risk BCC due to its anatomical peculiarities and problems in pre-surgical identification of tumour margins.<sup>1</sup>

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naso labial flap reconstruction. Post-operative period was uneventful. Histopathology reports suggestive of BCC. Patient was counselled and discharged for further oncological adjuvant therapy.



Figure 1: Pre-operative.



Figure 2: Intra-operative.



Figure 3: Post-operative.

### DISCUSSION

BCC is a common cutaneous malignancy. It is considered as a disease of the fair skinned population, explaining the paucity of studies from developing countries. UVB is the most important risk factor as 80% of lesions are seen on the head-and-neck area. Risk of disease increases with intermittent periods of sun exposure. Other risk factors include ionizing radiation, arsenic exposure, inherited syndromes, and immunosuppression.<sup>3</sup> Histologically, BCCs were divided into nodular, superficial, infiltrative,

morpheiform, metatypical, infundibulocystic, micronodular, keratotic (also known as 'pillar BCC'), fibroepithelioma, and mixed types. When tumor cell clusters with various sizes and shapes, showing typical peripheral palisading, were embedded in the dermis, they were termed as nodular BCC. If these clusters displayed basaloid cells arranged as elongated strands, with a few thick layers and little or no palisading peripheral cells, they were termed as BCC of the infiltrative type. Superficial BCCs were those exhibiting buds and irregular proliferations of tumor cells attached to an unusually atrophic epidermis, and showing little or no penetration into the dermis.

Morpheiform BCC had to show densely proplastic and heavily collagenized stroma, small irregular (sharply angulated) tongues of neoplastic basaloid cells, often 1-4 cells thick. Metatypical BCC (equated by some authors with 'basosquamous carcinoma') is marked with infiltrating jagged tongues of tumor cells, some of which show an abortive peripheral palisade and neat basaloid morphology, admixed with other areas showing intercellular bridge formation and cytoplasmic keratinization. In the infundibulocystic BCC, proliferating basaloid cells, typically in continuity with overlying epidermis, are observed as rounded nests surrounding structures filled with keratin and lined by a stratified epithelium with a granular cell layer. Micronodular BCC manifests as uniformly small nests of neoplastic basal cells with rounded peripheral contours extending widely throughout the sampled dermis. The adjacent stroma shows fibroplasia. The keratotic BCC manifests as rounded large basaloid tumor nests which show central keratinization and degeneration.

Fibroepithelioma manifests as atypical basaloid cells growing in thin lacy strands radiating down from points of continuity with the overlying epidermis. The stroma is often myxoid or shows plump stromal cells with collagens deposited around the basaloid tumor tongues. Some growth patterns which are explained above can occur in a combination, and this is called mixed type.<sup>6</sup> Therapy selection depends on the patient's age and gender as well as the site, size, and type of lesion. No single treatment method is ideal for all lesions or all patients. A biopsy should be performed in all patients with suspected BCC to confirm the diagnosis and determine the histologic subtype. The main goals of BCC treatment are (1) to completely remove the tumor to prevent recurrence at a later date, (2) to correct any functional impairment resulting from the tumor, and (3) to give the best cosmetic result to the patient, especially because most BCCs are on the face. Treatment of BCC is usually surgical, but some forms of BCC are amenable to medical treatment or radiation therapy. The various types of therapy include

Mohs micrographic surgery (MMS), standard surgical excision, EDC, radiation, photodynamic therapy, cryosurgery, topical therapies, and systemic medications such as vismodegib. The recurrence rates for primary BCC are as follows: Mohs surgery, 1.0%; surgical excision, 10.1%; EDC, 7.7%; radiation therapy, 8.7%; and cryosurgery, 7.5%.<sup>4</sup> Surgical excision provides tissue specimen for complete histological analysis; gives a lower recurrence rate and also bestows a better cosmetic result. Mohs surgery is the treatment of choice for larger or recurrent and high risk lesions. Curettage and cautery are preferred for smaller BCCs. Radiotherapy is preferred in the elderly and for BCCs located on the head. Cryotherapy is used for very small lesions but gives a poor cosmetic result. Laser treatment is still under research. For smaller superficial lesions topical imiquimod, 5-fluorouracil and photodynamic therapy (PDT) can be used.<sup>5</sup>

## CONCLUSION

Wide local excision with naso-labial flap reconstruction can be considered for local BCC over ala of nose, which gives excellent cosmetic result which can be further given topical agents. Radiotherapy may be considered for patients where surgery is not an option.

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## REFERENCES

1. Wollina U, Bennewitz A, Langner D. Basal cell carcinoma of the outer nose: overview on surgical techniques and analysis of 312 patients. *J Cutan Aesthet Surg.* 2014;7(3):143-50.
2. Maroun C, Alam E, Khalifeh I, Abbas O, Moukarbel RV. Nasal Basal Cell Carcinoma with Matrical Differentiation: Risk of Metastasis and Impact on Management. *Head Neck Pathol.* 2017;11(2):228-33.
3. George RM, Nazeer M, Criton S, Abraham UM, Francis A. Clinicopathological analysis of basal cell carcinoma – A retrospective study. *J Skin Sex Transm Dis.* 2021;3(1):51-5.
4. Drucker AM, Adam GP, Rofeberg V, Gazula A, Smith B, Moustafa F, et al. Treatments of Primary Basal Cell Carcinoma of the Skin: A Systematic Review and Network Meta-analysis. *Ann Intern Med.* 2018;169(7):456-66.
5. Rezakovic S, Zuzul K, Kostovic K. Basal Cell Carcinoma – Review of Treatment Modalities. *J Dermatol Clin Res.* 2014;2(5):1035.
6. Hakverdi S, Balci DD, Dogramaci CA, Toprak S, Yaldiz M. Retrospective analysis of basal cell carcinoma. *Indian J Dermatol Venereol Leprol.* 2011;77(2):251.

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