

Basal Cell Carcinoma of the Pinna: Clinical and Surgical Considerations

Dr. Ankush Babal¹, Dr. Pooja Saroj²

¹Department of Dermatology, Venereology and Leprosy, F H Medical College & Hospital, Agra, India
Email: [ankushbabal01234\[at\]gmail.com](mailto:ankushbabal01234[at]gmail.com)

²Department of Otorhinolaryngology, F H Medical College & Hospital, Agra, India
Email: [pooja.saroj0208\[at\]gmail.com](mailto:pooja.saroj0208[at]gmail.com)

Abstract: Basal cell carcinoma (BCC) is the most common malignancy of the skin and predominantly involves sun-exposed areas of the head and neck. The pinna is a high-risk site due to chronic ultraviolet exposure, thin skin, minimal subcutaneous tissue, and proximity to cartilage, often resulting in delayed diagnosis and increased recurrence rates. We report a case of basal cell carcinoma of the pinna in a 62-year-old male who presented with a non-healing ulcerated lesion over the superior helix of the right ear. Clinical examination revealed a pearly, rolled-margin lesion fixed to the underlying cartilage. Histopathological examination following punch biopsy confirmed the diagnosis of basal cell carcinoma. The patient was managed with wide local excision with a 5-mm safety margin, including involved cartilage, followed by reconstruction using a local advancement flap. Histopathological evaluation of the excised specimen confirmed tumor-free margins. Postoperative recovery was uneventful, and no recurrence was noted during six months of follow-up with satisfactory cosmetic outcome. This case emphasizes the importance of early clinical suspicion, prompt biopsy, and complete surgical excision in the management of pinna basal cell carcinoma. A multidisciplinary ENT-dermatology approach is essential for achieving optimal oncological clearance while preserving auricular function and cosmesis.

Keywords: Basal cell carcinoma, Pinna, External ear malignancy, Skin cancer, Surgical excision

1. Introduction

Basal cell carcinoma (BCC) is the most common malignant tumor of the skin, accounting for approximately 70–80% of all non-melanoma skin cancers. It predominantly affects sun-exposed areas of the body, particularly the head and neck region. Among these, the pinna represents a high-risk site owing to chronic ultraviolet (UV) radiation exposure, thin overlying skin, minimal subcutaneous tissue, and close proximity to cartilage. The external ear is frequently overlooked during routine skin examination, resulting in delayed diagnosis. From an otorhinolaryngology perspective, malignancies of the pinna are clinically significant due to their potential for cartilage invasion, local tissue destruction, and reconstructive challenges. Early diagnosis and appropriate surgical management are essential to prevent recurrence and cosmetic deformity. This article presents a case of basal cell carcinoma of the pinna and discusses its clinical and surgical considerations.

2. Case Report

A 62-year-old male presented to the ENT outpatient department with complaints of a non-healing lesion over the right pinna for the past eight months. The lesion initially appeared as a small painless nodule over the superior helix and gradually increased in size with surface ulceration. Occasional bleeding was noted following minor trauma. There was no associated pain, discharge, hearing loss, tinnitus, or vertigo. The patient was a farmer by occupation with a history of prolonged sun exposure. There was no history of radiation exposure, immunosuppression, or similar lesions elsewhere on the body. Family history was non-contributory.

2.1 Clinical Examination

Local examination revealed a 1.5 × 1.2 cm ulcerated nodular lesion over the superior helix of the right pinna. The lesion had raised, rolled pearly margins with central ulceration and crusting. The surrounding skin showed features of actinic damage. The lesion was firm, non-tender, and fixed to the underlying cartilage. No regional lymphadenopathy was detected. Otoscopic examination showed a normal external auditory canal and intact tympanic membrane. Examination of the nose, oral cavity, and neck was unremarkable.

2.2 Investigations

Routine hematological investigations were within normal limits. A punch biopsy obtained from the edge of the lesion revealed nests of basaloid cells with peripheral palisading and retraction artefacts, confirming the diagnosis of basal cell carcinoma.

3. Treatment

The patient underwent wide local excision under local anesthesia with a 5-mm safety margin, including the involved cartilage. The surgical defect involved the upper helix and scapha. Reconstruction was performed using a local advancement flap to preserve the contour and symmetry of the pinna. Histopathological examination of the excised specimen confirmed tumor-free margins. Postoperatively, the patient was treated with oral antibiotics, analgesics, and local wound care. Wound healing was satisfactory with no immediate complications.

4. Follow-Up

The patient was followed up at one week, one month, three months, and six months postoperatively. The surgical site healed well with an acceptable cosmetic outcome. No evidence of recurrence or new lesions was observed. The patient was advised sun-protective measures and regular ENT and dermatology follow-up.

5. Discussion

Basal cell carcinoma of the pinna has a higher recurrence rate compared to other facial sites due to anatomical complexity and difficulty in achieving adequate surgical margins. Chronic ultraviolet radiation exposure is the most significant etiological factor. Additional risk factors include increasing age, male gender, fair skin, and outdoor occupation. Clinically, BCC may present as nodular, ulcerative, superficial, or pigmented variants. Differential diagnoses include chronic otitis externa, eczema, actinic keratosis, keratoacanthoma, and squamous cell carcinoma. Hence, early biopsy of any non-healing lesion of the pinna is mandatory. Surgical excision with adequate margins remains the gold standard of treatment. Mohs micrographic surgery provides superior margin control but may not be universally available. Reconstruction of auricular defects requires careful planning to ensure preservation of function and cosmesis.

6. Conclusion

Basal cell carcinoma of the pinna is a common yet frequently overlooked malignancy of the external ear. Early diagnosis, prompt biopsy, and complete surgical excision with clear margins are essential to prevent local tissue destruction and recurrence. A multidisciplinary ENT–dermatology approach plays a crucial role in achieving optimal oncological and cosmetic outcomes.

References

- [1] Fitzpatrick TB, et al., Fitzpatrick's Dermatology in General Medicine, 9th ed., McGraw-Hill.
- [2] Rook A, et al., Rook's Textbook of Dermatology, 10th ed., Wiley-Blackwell.
- [3] Scott-Brown WG, et al., Scott-Brown's Otorhinolaryngology and Head & Neck Surgery, 8th ed., CRC Press.
- [4] Cummings CW, et al., Cummings Otolaryngology: Head and Neck Surgery, 7th ed., Elsevier.