CASE REPORT

# Sebaceous carcinoma of forehead: A rare malignant lesion

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## Abstract

Sebaceous carcinoma is an uncommon malignant tumour of the sebaceous glands. This lesion typically occurs as painless and slow growing nodule in the eyelid region. In rarity, it can develop on buccal mucosa, head and neck, and other regions of the body in people in their 60s and 70s. Sebaceous carcinoma is locally aggressive and carries the potential of regional and distant spread. We present the case of a 15-year-old male who was diagnosed with sebaceous carcinoma over the forehead. After discussing the case in the board meeting, surgery was performed to remove the tumour with 1 cm margin. Outer table of the frontal bone was also removed and intraoperative frozen section was done for margin clearance. After the excision, soft tissue coverage was done with free Anterolateral thigh flap and the patient received six cycles of post-operative radiation therapy.

**Keywords:** Free Anterolateral thigh flap, sebaceous carcinoma, malignant tumour, frozen section

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## Introduction

Sebaceous cancer is a rare malignant tumour of the sebaceous gland, which mostly occurs in the eyelids area[1,2] with rare occurrence in extra ocular regions, like head and neck, breasts, trunk, and genitalia.[3] It is generally reported in old age, i.e. in 60s and 70s.[4] This lesion can occur alone or may be associated with Muir-Torre syndrome.[5] Local and distant metastasis is quiet common. The occurrence of sebaceous carcinoma is 1-2/1,000,000 per year.[6] Morphologically well differentiated and moderately differentiated sebaceous carcinoma tends to exhibit vacuolisation within cytoplasm of the tumour cell.[7] The diagnosis of sebaceous carcinoma is made on detail history, clinical assessment, and tissue biopsy. This case has been reported for its sheer rarity of occurrence at a young age in Pakistan

## Case Report

This is the case of a 15-year-old male with sebaceous carcinoma over the forehead. The patient first presented in the OPD of Jinnah Burn & Reconstructive Surgery Centre, Lahore, on September 17, 2020 with complaint of lesion over forehead since last seven years after a previous history of trauma. The lesion was gradually increasing in size, and was associated with multiple discharging sinuses since the last three years. Past medical and surgical history was unremarkable. Clinical diagnosis of sebaceous cell carcinoma was made. After that, incisional biopsy was done, which revealed basosquamous cell carcinoma. The lesion was multi-lobulated, of about 10.8 $cm^2$ over the middle of the forehead to the dorsum of the nose and both medial aspects of eyebrows; it was erythematous in appearance, with multiple discharging sinuses, normal in temperature when compared to the surrounding tissue, firm to hard in consistency, non-tender, and immobile. Bilateral multiple pre-auricular lymph nodes were palpable. Ocular examination was normal and no neurological deficit was seen. Biopsy of the lesion (incision biopsy) was repeated and histopathology report revealed it to be sebaceous cell carcinoma. CT scan showed a soft tissue tumour with involvement of periosteum of the outer table of the forehead. Family history and routine laboratory investigations were unremarkable. There was no history of exposure to radiation.

After discussing the tumour in the board meeting, excision of the tumour with 1cm margin was performed and the outer table of the skull was removed for tumour clearance (Figure-1, 2 and 3). Defect was then reconstructed with free anterolateral thigh flap (Figure-4, 5). Postoperatively, the patient remained stable and was discharged on the seventh post-operative day. The patient received six cycles of post-operative radiation therapy. He was followed-up twice weekly for the first month then monthly for up to six months. After the six-month follow-up, no recurrence of the tumour was noted (Figure-6)

**Figure-1:** Tumour over forehead.

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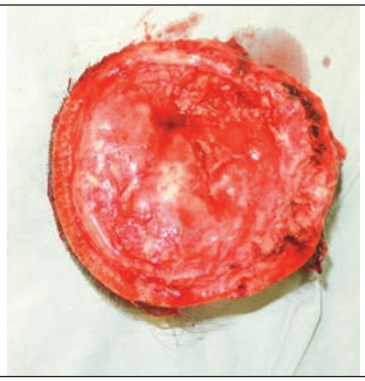

**Figure-2:** Excision of tumour (excised tissue).

**Figure-3:** Defect after excision of outer table.

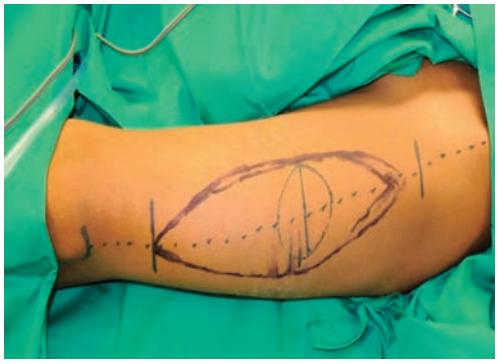

**Figure-4:** Marking of antero-lateral thigh (ALT) flap.

**Figure-6:** After six-month follow-up.

## Discussion

Epidermal appendages contain sebaceous glands and other structures. Neoplasm of these glands can be both benign and malignant. Malignant tumours occur in periorbital area; however, very few cases of extra ocular site malignancy have been reported.[7] These tumours, being painless, usually result in delayed diagnosis and carry significant morbidity and mortality due to loco-regional spread. The prevalence is less than one percent of skin malignancies and mortality rate is around 20%.[8] Sebaceous carcinomas may grow in nests with central necrosis. Formalin-fixed tissue or fresh tissue can be frozen and positive fat stains (oil red O) can confirm the diagnosis of sebaceous carcinoma.[9] The histological criteria for sebaceous carcinoma are nuclear pleomorphism, foamy vacuolisation of the cytoplasm, lobular architecture and high mitotic activity.[10]

Surgical excision with adequate margin under frozen section control remains the main stay of treatment; however, in some cases radiotherapy is also advisable.

## Conclusion

Extraocular sebaceous carcinoma in young age is a rare malignant lesion in Pakistan with moderate to high rate of loco regional spread. Therefore, early diagnosis and surgical management is important to improve survival.

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