

Sebaceous Carcinoma Presenting as A Subcutaneous Scapular Mass in A Patient with History of Esophageal Carcinoma: A Case Report

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Abstract

Case Report

Sebaceous carcinoma is a rare malignant adnexal tumor, often arising in periocular regions, with few reported cases from extraocular sites. We present a rare case of sebaceous carcinoma arising in the scapular region in a 64-year-old male with a prior history of esophageal carcinoma. The diagnosis was confirmed histologically after surgical excision.

Keywords: Sebaceous carcinoma, scapular mass, skin adnexal neoplasm, esophageal carcinoma, histopathology.

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INTRODUCTION

Sebaceous carcinoma is an uncommon and aggressive cutaneous malignancy, typically arising from the sebaceous glands. While it primarily occurs in the periocular region, extraocular presentations are rare and may pose diagnostic challenges due to their nonspecific clinical appearance [1,2,3,4]. It accounts for less than 1% of cutaneous malignancies³, with extraocular variants comprising about 25% of cases⁴. Histopathological evaluation remains the gold standard for diagnosis⁵. We report a unique case of sebaceous carcinoma in the scapular region in a patient with a history of esophageal carcinoma, which is an extremely rare presentation.

CASE PRESENTATION

A 64-year-old male presented to the outpatient department with a complaint of soft tissue swelling over the right scapular region for the past 15 days. The swelling was associated with intermittent pain but showed no change in size. There were no systemic symptoms such as fever or weight loss. On fine needle aspiration cytology (FNAC), a blood-mixed aspirate was obtained, which was reported as a skin adnexal neoplasm.

GROSS EXAMINATION

A yellowish soft tissue specimen with skin cover was received in the Department of Pathology, Government Medical College, Patiala. The tissue measured 2.8 × 2 × 1.7 cm, and the attached skin flap

measured 1.5 × 0.8 cm. On cut section, a white, homogeneous area measuring 1.7 × 1.6 cm was identified.

Tissue Processing Steps in Histopathology Lab

1. Fixation: The specimen was fixed in 10% neutral buffered formalin for 24 hours.
2. Grossing: The tissue was measured, and representative sections were taken.
3. Dehydration: Tissue sections were processed in increasing concentrations of ethanol (70%, 90%, 100%).
4. Clearing: Sections were immersed in xylene to remove alcohol and prepare tissue for paraffin infiltration.
5. Infiltration: Tissues were infiltrated with molten paraffin wax.
6. Embedding: Tissues were embedded in paraffin blocks.
7. Sectioning: 3–5 µm thick sections were cut using a microtome.
8. Staining: Sections were stained with hematoxylin and eosin (H&E).
9. Mounting: Stained sections were mounted with coverslips using DPX.

Microscopic Examination

- Sections revealed epidermis, dermis, and subcutaneous tissue.
- Epidermis was lined by stratified squamous epithelium.

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- Dermis showed malignant tumor tissue arising from sebaceous glands, arranged in variable-sized lobules.
 - Tumor cells were medium to large, with nuclear pleomorphism, high nuclear-to-cytoplasmic ratio, vesicular chromatin, 1–2 prominent nucleoli, and eosinophilic cytoplasm.
 - The centers of lobules showed sebaceous cells with foamy cytoplasm.
 - Atypical mitotic figures, areas of necrosis, and chronic inflammatory infiltrates were evident.
- Final Diagnosis: Sebaceous Carcinoma (Extraocular)**

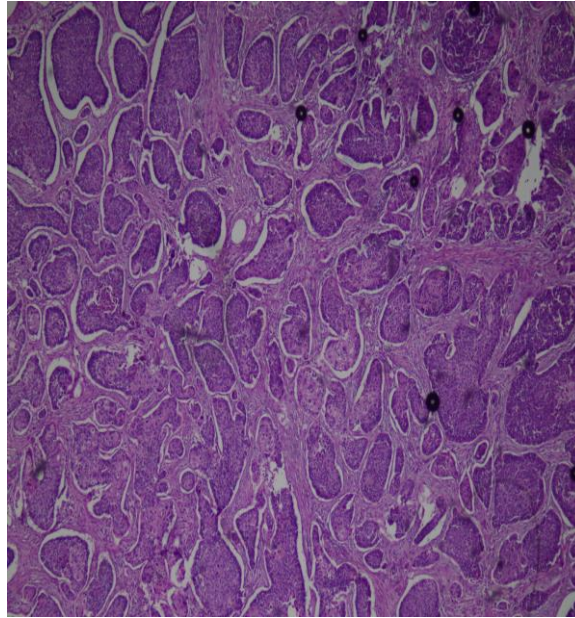


Figure 1: shows 40x view of the tumor tissue lobules of sebaceous carcinoma

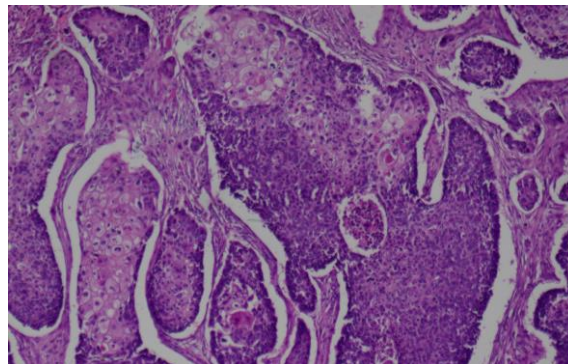


Figure 2: shows 100x view of the tumor tissue arising in sebaceous glands

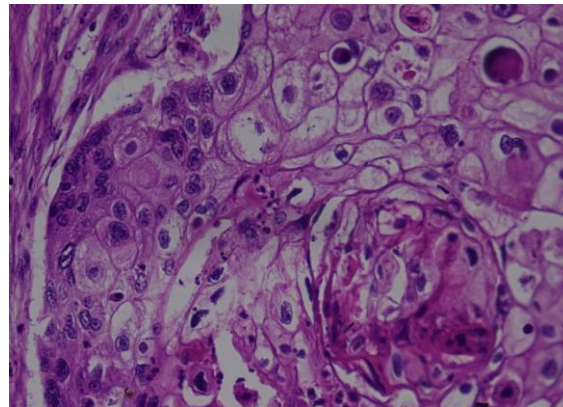


Figure 3: Shows 400x view of multivacuolated tumor cells arising in sebaceous gland exhibiting nuclear indentation, pleomorphism

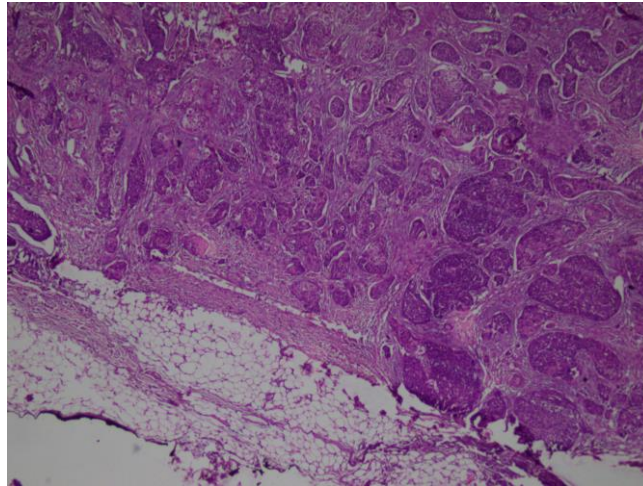


Figure 4: Shows 40x view of tumor tissue reaching up to subcutaneous tissue

DISCUSSION

Sebaceous carcinoma is an aggressive tumor with high rates of recurrence and metastasis. Although it predominantly arises in the periocular region, extraocular variants account for about 25% of cases [6,7,8]. The present case is significant due to its unusual location over the scapular region and the background history of esophageal carcinoma, raising considerations of a second primary versus metastasis. Histopathology remains the gold standard for diagnosis. The hallmark features include lobular architecture, sebaceous differentiation with foamy cytoplasm, nuclear pleomorphism, and atypical mitoses [9,10]. Given the aggressive nature of sebaceous carcinoma, surgical excision with clear margins is the treatment of choice, followed by regular follow-up.

CONCLUSION

This case underscores the importance of considering sebaceous carcinoma in the differential diagnosis of cutaneous masses, especially in patients with prior malignancies. Timely histopathological evaluation is critical for diagnosis and appropriate management.

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