Rare Axillary Sebaceous Cyst Carcinoma: A Case Report with Review of Literature

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Abstract

Introduction: Sebaceous Cyst carcinoma (SCC) is a rare aggressive skin cancer derived from the epithelium of sebaceous glands. Sebaceous cyst carcinoma accounts to <1% of cutaneous malignancy. Sebaceous cyst carcinomas are generally divided into those occurring in ocular (75%) or extraocular locations. SCC is very rare in axilla and confused with secondaries from breast carcinoma or lymphoma.

Presentation of the case: Here we are presenting a case of 38 year old male, who presented with painless, progressive swelling on left axilla from one year. He was evaluated with ultrasound breast and axilla and a fine needle ultrasound from the swelling. The FNA of ulcerated lesion in the left axilla showed positive malignant epithelial cells. The tumour cells display oval hyperchromatic to vesicular nuclei with moderate nuclear pleomorphism, conspicuous nucleoli in places and scant cytoplasm. The tumour cells are strongly immunoreactive for CK7, EMA, and CD10, weakly and focally reactive for CK20, and non-reactive for vimentin.

Conclusion: In conclusion, Sebaceous Cell Carcinoma is a rare and aggressive malignancy. The fumigating mass in the axilla may rarely be a sebaceous cyst carcinoma, may present with or without breast lump, prognosis is very poor therefore should be treated aggressively and adequately.

Keywords: sebaceous Cyst carcinoma (SCC); axilla, malignancy; immunoreactivity

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Consent: Consent was taken from the patient for publication of this case report.

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Introduction

Sebaceous carcinoma or sebaceous cyst carcinoma (SCC) is a rare, highly malignant, and potentially lethal tumor of the skin, which is most commonly present in the eyelid. This neoplasm is an aggressive, malignant tumor arising from sebaceous glands of the skin and adnexa of different parts of body, such as the meibomian glands in the tarsus, the Zeis glands of the eyelashes, the caruncle, and the skin of the eyebrow. Many other carcinomas may show sebaceous differentiation; however, pure malignant sebaceous tumor is very rare tumor, with approximately 75% occurring in the periocular region [1]. This tumor is more frequent in Asian countries, comprising 33% of eyelid tumors and second behind basal cell carcinoma [2]. In USA, it is fourth cause of death after basal cell carcinoma, squamous cell carcinoma, and melanoma [3, 4]. SCC is very rare in axilla and confused with secondaries from breast carcinoma or lymphoma.

Case Summary

1. Case Presentation

A 38 year old male presented with painless, progressive swelling in the left axilla from one year (Figure 1). It was not associated with swelling in the upper limb, any breast lump and swelling in other part of body. He does not have comorbidities like hypertension, diabetes mellitus, allergy to drugs and tuberculosis. There was no history of similar cancer in his family. He had history of cough and hemoptyisis in past but no present symptoms was noticed.

Figure 1 Patient examination revealed an ulceroproliferative growth on left axilla with fungating mass of 4x5cm diameter and mobile from chest wall.
On examination: he was average built with normal systemic examination findings. On left axilla he had a fungating mass of 4x5cm in largest diameter and mobile from chest wall (Figure 1). Few left axillary lymphnodes were enlarged and mobile. Breast and opposite axilla was clinically normal.

He was evaluated with ultrasound of breast and axilla and a fine needle aspiration cytology under ultrasound guidance from the swelling. The Fine needle aspiration (FNA) smears from ulcerated lesion adjacent to left axilla show largely hemorrhage. Few cohesive clusters of atypical cells seen having high N:C ratio, hyperchromatic nuclei, occasional prominent nucleoli and mild to moderate amount of cytoplasm. The FNA ulcerated lesion left axilla showed positive malignant epithelial cells. He was diagnosed clinically as sebaceous cyst carcinoma and plan for wide local excision under general anesthesia.

2. Surgical procedure and findings

After adequate preoperative preparation, proper informed consent was taken for the surgery and possible complications. For SCC of left axilla, he underwent surgery under general anesthesia; the transverse skin crease incision around the axillary mass with 2 cm normal skin margin, the mass was excised. Through the same incision, clavipectoral fascia divided and entered into the axilla. Axillary vein was identified, dissected to antero-inferior surface of vein and cleared the axillary lymph node up to level 2 of axilla. Nerve to serratus anterior and nerve to latissimus dorsi were preserved. Intercosto-brachial nerve was sacrificed and haemostasis secured.

Wide local excision of axillary mass with axillary lymph node dissection (ALND) was performed. The 4x4x8 cm ulceroproliferative mass in left axilla was excised, sup margin marked with suture and multiple enlarged node in level 1 and 2, was dissected. The specimen was send for histopathological examination.

3. Histopathological examination

From left axillary region tissue has been excised to see the histopathological changes in those areas (Figure 2, Figure 3a & 3b). Gross, measuring a size 5x4x3 cm and bearing a proliferative growth measuring 6x3cm. The growth was yellowish white and nodular with areas of necrosis. This growth was 2 cm from anterior and posterior margins, 0.4cm from superior margin, and 0.5cm from inferior margin. 20 lymph nodes were also received, largest measuring 2cm. Multiple pieces from growth and pieces from all the lymph nodes were embedded.

The sections from the growth show a highly cellular dermal tumour disposed in lobules and nests composed of polygonal tumour cells, along with large areas of necrosis. The tumour cells display oval hyperchromatic to vesicular nuclei with moderate nuclear pleomorphism, conspicuous nucleoli in places and scant cytoplasm. The tumour cells towards the centre of lobules show sebaceous differentiation in the form of vesicular nuclei, prominent nucleoli and moderate to abundant finely vacuolated to foamy cytoplasm. Brisk mitosis is noted. The tumour is close (<2mm) to the superior margin. All other margins are free from tumour. The overlying epidermis is hyperplastic. All lymph nodes reveal reactive changes and are free of tumour (Figure 2).

The tumour cells are strongly immunoreactive for CK7 (Figure 3a), EMA, and CD10, weakly and focally reactive for CK20 (Figure 3b), and non-reactive for vimentin.
Figure 2 Tumor growth show a highly cellular dermal tumor disposed in lobules and nests composed of polygonal tumour cells, along with large areas of necrosis. The tumour cells display oval hyperchromatic to vesicular nuclei with moderate nuclear pleomorphism, conspicuous nucleoli in places and scant cytoplasm.

Figure 3a Immunohistochemistry (IHC) photomicrograph showing the tumor cells are strongly immunoreactive for CK7 marker.
Figure 3b IHC photomicrograph showing the tumor cells are weakly and focally reactive for CK20 marker.

Discussion

Sebaceous carcinoma categorized into ocular and extra-ocular group. The ocular tumors commonly originate from the meibomian glands (51%) and glands of Zeiss (10%) on the eyelid [5]. The upper eyelid is involved 2 to 3 times more commonly than the lower eyelids [6, 7]. The extra-ocular lesions account for 20% of sebaceous carcinomas and are most commonly found in the head and neck region of elderly patients, including the scalp and face. Rarely, sebaceous carcinoma may be found on the trunk, genital region, extremities, and oral cavity [8-10]. Most commonly it occurs in parotid glands [11]. Ocular sebaceous carcinomas present as slowly enlarging, painless nodules of the eyelid margins or conjunctiva that may be clinically mistaken for benign inflammatory lesions, such as chalazions, blepharitis, and conjunctivitis.

In our patient the sebaceous carcinoma presented as the fungating mass into the axilla therefore it was confused with the breast cancer with axillary metastasis and the investigation and management was directed accordingly.

Pathological procedure is used for definitive diagnosis. The tumour frequently exhibits diverse clinical presentations and histologic patterns, often resulting delay in an accurate diagnosis [12]. Histology may SCC or may be uncertain [13]. In such cases initial evaluation for search of occult internal malignancy in breast, bone, pelvic lymph node, rectum etc. is required [14]. Therefore, mammography, IVU, Chest X-Ray, CT Abdomen, Complete blood picture, erythrocyte sedimentation rate (ESR), Renal and liver function tests, stool for occult blood and colonoscopy may be required [14].

Surgery is the main stay of treatment, local resection with 1cm margin [14, 15]. Other modality includes, Cryotherapy, chemotherapy with agents like 5-Fluorouracil [15], radiotherapy [15], isotretinoin 0.8mg/kg/day prevents cutaneous recurrence in the lesion [14]. Multimodal approach is
preferable. Radiation therapy should be reserved for patients unable or unwilling to undergo surgery [15].

The chief prognostic factor is the time of diagnosis of SCC. When diagnosis is made in the first initial six months the mortality rate is about 14% and rises to 38% after six month [16]. Factors associated with poor prognosis are vascular, lymphatic, orbital metastases, poor differentiation, multicentric origin, duration of symptoms more than six months, tumor diameter ≥10mm and a highly infiltrative pattern [17].

Conclusion

The fungating mass in the axilla may rarely be a sebaceous cyst carcinoma, may present with or without breast lump or axillary lymphadenopathy, prognosis is very poor therefore should be treated aggressively and adequately.

References


