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Case Report

Malignant adnexal tumors: a rare case of cutaneous malignancy

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ABSTRACT

Skin adnexal tumours (SAT) are a large and diverse group of benign and malignant neoplasms, which exhibit morphological differentiation towards one of the different types of adnexal epithelium present in normal skin: pilosebaceous unit, eccrine and apocrine. In present case, a forty-five-year-old female patient presented to us with a solitary erythematous swelling over the left chest wall since two years, which was approximately 3 × 3 cm in size, slowly growing to its present size of 10X5 cm, painless, hard in consistency with smooth erythematous surface, non-mobile and not associated with discharge or axillary lymphadenopathy.

Keywords: Adnexal tumors, Neoplasms, SAT

INTRODUCTION

Skin adnexal tumours (SAT) are a large and diverse group of benign and malignant neoplasms, which exhibit morphological differentiation towards one of the different types of adnexal epithelium present in normal skin: pilosebaceous unit, eccrine and apocrine.[1]

SAT may display more than one line of differentiation (hybrid/composite tumours), rendering precise classification of these neoplasms difficult.[2] The diagnosis of these mixed SAT relies on histological evaluation, and they are usually classified according to the predominant morphological component.

The histogenesis of mixed adnexal tumours is still uncertain; however, the possibility of origin from a pluripotent stem cells is suggestive. Most SAT are benign, and local complete excision is curative. However, diagnosing some of these tumours has important implications, as they might be markers for syndromes associated with internal malignancies, such as trichilemmomas in Cowden disease and sebaceous tumours in Muir–Torre syndrome.[3] These tumours are rare, locally aggressive, and have the potential for nodal involvement and distant metastasis, with a poor clinical outcome. Therefore, establishing a diagnosis of malignancy in SAT is important for therapeutic and prognostic purposes. Due to limited availability of literature, the diagnosis as well as management of these tumours is quite difficult. Here we present a case of a malignant adnexal tumor because of its rarity over the chest wall, its diagnosis and management.

CASE REPORT

A forty-five-year-old female patient presented to us with a solitary erythematous swelling over the left chest wall since two years, which was approximately 3 × 3 cm in size, slowly growing to its present size of 10X5 cm, painless, hard in consistency with smooth erythematous surface, non-mobile and not associated with discharge or axillary lymphadenopathy.

Investigations

Biopsy report: multiple areas show tumor composed of cells arranged in large clusters, nests, cords and insular

pattern, with scanty eosinophilic to clear cytoplasm and nuclei showing moderate pleomorphism with dispersed chromatin. Tumor cells infiltrating into subcutaneous tissue and skeletal muscle fibres- features suggestive of malignant adnexal tumor? Eccrine? CT scan was done and it was suggestive of well-defined round to oval peripheral enhancing soft tissue lesion involving anterior chest wall with no bone involvement f/s/o neoplastic etiology.

Management

Wide local excision of the swelling was done and tissue sent for histopathological evaluation to confirm the diagnosis and to look for free margins

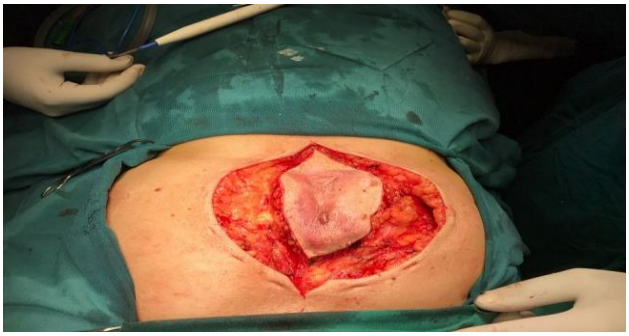

Figure 1: Intra operative image of the cutaneous lesion on the chest wall.

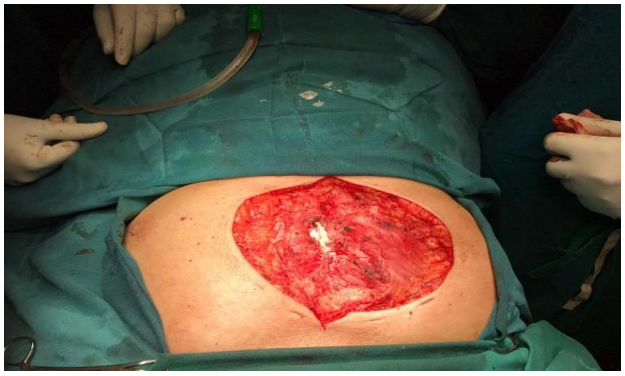

Figure 2: Tumour bed after wide local excision.

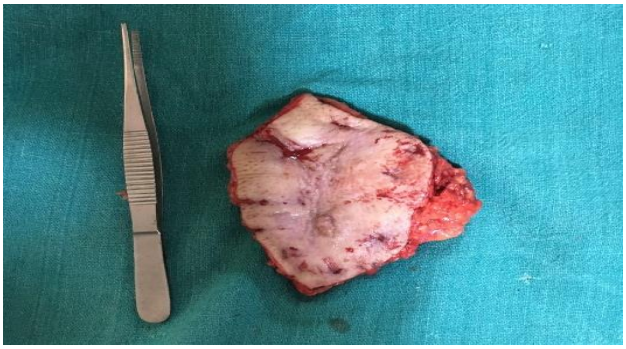

Figure 3: Specimen which is hard and infuriated surrounding.

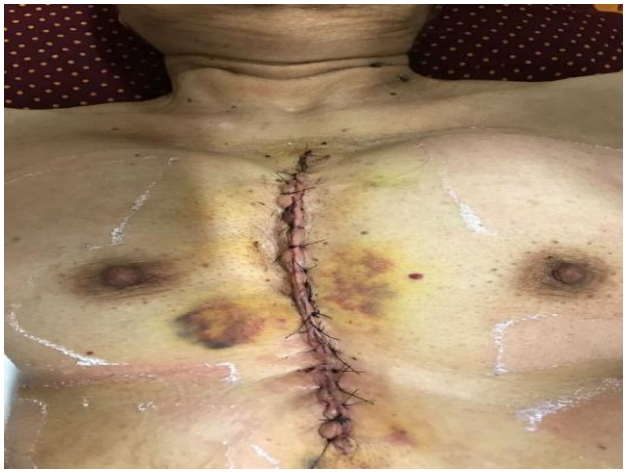

Figure 4: Post-operative image with adequate primary closure.

DISCUSSION

Sweat glands are of two types: Eccrine sweat glands open directly onto the surface of the skin and are widely distributed almost everywhere Apocrine sweat glands are found in the armpit, areola, perineum, ear and in the eyelid. Rather than opening directly onto the sur-face of the skin, they secrete sweat into the pilary canal of the hair follicle.

Sweat gland carcinomas occur primarily in adult patients, with a peak incidence in fifth and sixth decades of life. Majority occur in the genital skin and perineum (34.5%), followed by trunk (26.4%), head and neck (18.3%) and lower extremities (13.9%).[4]

Apocrine carcinomas manifest as non-tender single or multiple, firm, rubbery or cystic masses with red to purple overlying skin.[5] Tumour cells are PAS (periodic acid-schiff stain) positive due to glycogen granules and diastase resistant

Eccrine gland carcinomas possess no distinctive clinical features making diagnosis by gross appearance virtually impossible. They usually manifest as non-tender, subcutaneous nodules, primarily in elderly individuals4. Individual malignant cells are rich in glycogen and stain with PAS and are diastase sensitive with prevalent nuclear changes and propensity for lymphatic invasion.[1,6]

Sites of sweat gland carcinoma metastasis include nodes, lungs, liver and bone. Metastatic deposits from undiagnosed visceral and breast adenocarcinoma are virtually indistinguishable microscopically from sweat gland carcinoma and must be considered before a diagnosis of metastatic sweat gland carcinoma is made.[7]

The recommended treatment of all subtypes of sweat gland carcinomas is wide surgical excision along with regional lymphnode dissection in the presence of clinically positive nodes.

Some authors advocate prophylactic regional lymph node dissection, especially in patients with recurrent lesions after wide excision or with highly undifferentiated tumours.[4] Sweat gland carcinomas are radio resistant, and chemotherapy has been infrequently employed. Prognostic factors for sweat gland carcinoma are difficult to identify, again owing to the small number of reported cases. The likely prognostic factors include size, histological type, lymph node involvement and distant metastasis.[8]

CONCLUSION

Sweat gland carcinomas are a rare group of tumours with potential for local destruction as well as distant metastasis. Wide surgical excision along with regional lymph node dissection in the presence of clinically positive nodes is the recommended treatment. However, a frequent follow up is essential to detect early recurrence as well as distant metastasis.

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