

Skin Adnexal Adenocarcinoma: Case of a Rare Malignant Cutaneous Tumor

ABSTRACT

There are countless benign and malignant lesions that can develop into skin tumors. Their conduct and potential for malignancy varies. In addition to more prevalent melanomatous and squamous cell carcinomas, there is an uncharted area of adnexal tumors that are uncommon and can present a challenge for the treating physician. Their appearance and demography have not yet been standardized universally. Because it is an uncommon tumor, it can be challenging to detect and distinguish from metastatic cutaneous breast cancer. Surgery continues to be the gold standard of care for curable diseases. There are currently no clear-cut recommendations for treating metastatic illness, especially in terms of systemic medication. We provide a case study of a patient who was diagnosed with right supraclavicular cutaneous adnexal adenocarcinoma without lymph node or bone metastases.

Key words: Adenocarcinoma, Apocrine, Chemotherapy, Eccrine, Skin adnexal tumors

INTRODUCTION

Skin adnexal tumors are a diverse category of uncommon tumors with no established standards for treatment. They consist of several histologic entities, such as follicular cells or skin glands such as eccrine, apocrine, sebaceous, sweat duct, or ceruminous glands.^[1] Their propensity for malignancy and behavior differs. The fact that only in 2005 was a classification under the World Health Organization classification of skin carcinomas undertaken reflects the dearth of scientific data on these tumors.^[2] This type of tumors may be staged according to the American Joint Committee on Cancer guidelines for non-melanoma and non-Merkel cell skin tumors. The head, neck, and trunk are where they are most frequently found. The eccrine sweat gland origin types are the most prevalent.

There are not many sizable population-based studies on skin adnexal tumors currently available. The Surveillance, Epidemiology and End Results database was used to create the majority of these. These studies benefited from having a sizable study sample and a wider representation of the general population. However, they were not without flaws, such as inconsistent pathology reporting, a lack of precise information regarding the status of the margin, recurrences, and selection criteria for nodal sampling, adjuvant chemotherapy, and radiation therapy.

Because of the overlap in tumor morphology, it is frequently challenging, if not impossible, to distinguish it from cutaneous metastases of breast cancer.^[3] The use of immune histochemical markers is limited. To differentiate between metastases and primary cutaneous cancer, it may be very beneficial to know the clinical history of the lesion. The most telling sign of a primary malignancy is, in particular, a single lesion that has been present for a long time and has

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suddenly grown larger, whereas several lesions in the same anatomical area could be signs of cutaneous metastases.^[4]

There are currently no standardized therapy recommendations due to the rarity of this cancer. The standard of therapy for the primary resectable tumor is still wide local excision. In the event of distant metastases or incurable disease, radiotherapy may be an alternative. Chemotherapy's function in advanced disease is still unknown.

CASE REPORT

A 55-year-old lady presented in January 2022 to our clinic with complaint of painful, solitary cutaneous swelling over right supraclavicular region for 5 years. The lesion was approximately 3*4 cm in size and slowly progressed to its present size of 7*4 cm, hard in consistency with smooth erythematous surface, non-mobile, not associated with discharge, or lymphadenopathy. There were no other associated swelling in the body. Physical examination revealed an erythematous, solitary, and fibrotic subcutaneous mass with no evidence of metastasis. Patient had not taken any treatment



Figure 1: Post-operative picture of excised lesion

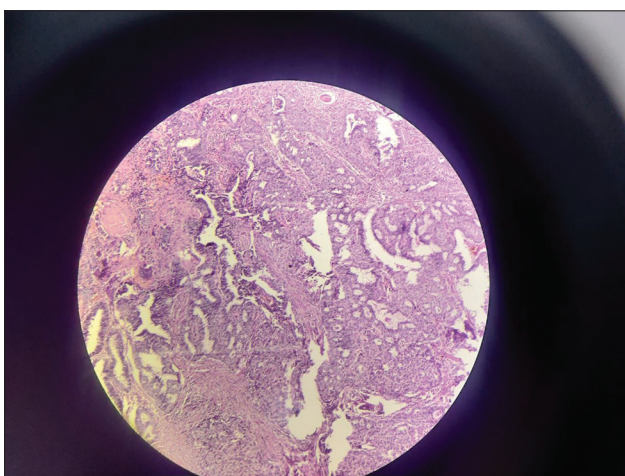


Figure 2: Histopathology slide

for the same. A cutaneous biopsy was performed leading to the diagnosis of adnexal adenocarcinoma. Decision was made to perform fluoro-deoxy-glucose positron emission tomography (PET) to confirm whether it is primary skin lesion or secondary from some other primary. PET scan was showing increased uptake in the right supraclavicular region with minimal uptake in the left lobe of thyroid but which was not clinically significant. No other distant lesions were noted. Furthermore, we did ultrasonography-guided fine needle aspiration cytology of the left thyroid lobe lesion, which was inconclusive. Because of the pain and local inflammation, in January 2022, patient underwent wide local excision of the lesion [Figure 1]. The diagnosis of primary adnexal adenocarcinoma was confirmed [Figure 2 and 3].

DISCUSSION

In this case report, we describe a relatively rare condition that presents difficult diagnostic and therapeutic challenges. Histologically, it can be very challenging to identify between primary adnexal and metastatic breast adenocarcinomas, and some authors contend that they are almost identical.^[5]

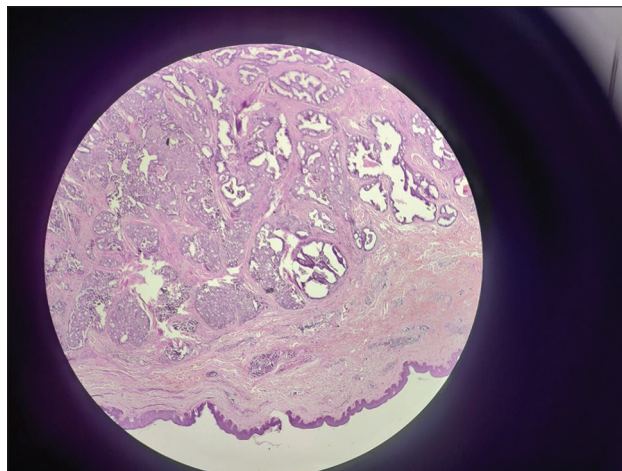


Figure 3: Histopathology slide

A rare type of malignancies with a poor prognosis and little support for treatment is skin adnexal cancers. There are no set rules because they are uncommon. Even while some cases have been found to respond to single-agent or combination chemotherapy, many experts concur that its significance is uncertain. Anthracycline, cyclophosphamide, or carboplatin and paclitaxel-based regimens were investigated, in particular.^[6,7]

Adjuvant radiation is sometimes used to treat high-risk cancers.^[8] In cases when adequate resection margins cannot be attained due to the anatomic position of the lesion or with positive resection margins, post-operative irradiation is supported by current ideas on the function of adjuvant radiation.^[9,10] However, radiotherapy has been used more frequently for metastatic lesions or locally advanced disease.

CONCLUSION

Adenocarcinoma of skin adnexa is rare, difficult to diagnose and without any established treatment protocol in place.

REFERENCES

1. Martinez SR, Barr KL, Canter RJ. Rare tumors through the looking glass: An examination of malignant cutaneous adnexal tumors. *Arch Dermatol* 2011;147:1058-62.
2. Boit LP, editor. *Pathology and Genetics of Skin Tumors*. France: IARC; 2006.
3. Danialan R, Mutyambizi K, Aung P, Prieto VG, Ivan D. Challenges in the diagnosis of cutaneous adnexal tumours. *J Clin Pathol* 2015;68:992-1002.
4. Storm CA, Seykora JT. Cutaneous adnexal neoplasms. *Am J Clin Pathol* 2002;118 Suppl: S33-49.
5. Fernandez-Flores A. The elusive differential diagnosis of cutaneous apocrine adenocarcinoma vs. metastasis: The current role of clinical correlation. *Acta Dermatovenerol Alp Pannonica Adriat* 2009;18:141-2.
6. Piedbois P, Breau JL, Morere JF, Israel L. Sweat gland carcinoma

- with bone and visceral metastases. Prolonged complete remission lasting 16 months as a result of chemotherapy. *Cancer* 1987;60:170-2.
7. Tlemcani K, Levine D, Smith RV, Brandwein-Gensler M, Staffenberg DA, Garg MK, *et al.* Metastatic apocrine carcinoma of the scalp: Prolonged response to systemic chemotherapy. *J Clin Oncol* 2010;28:e412-4.
 8. Chamberlain RS, Huber K, White JC, Travaglino-Parda R. Apocrine gland carcinoma of the axilla: Review of the literature and recommendations for treatment. *Am J Clin Oncol* 1999;22:131-5.
 9. Ogata D, Kiyohara Y, Yoshikawa S, Kasami M. Treatment strategy for cutaneous apocrine carcinoma. *Int J Clin Oncol* 2014;19:712-5.
 10. Romeu M, Foletti JM, Chossegros C, Dales JP, Berbis P, Cribier B, *et al.* Malignant cutaneous adnexal neoplasms of the face and scalp: Diagnostic and therapeutic update. *J Stomatol Oral Maxillofac Surg* 2017;118:95-102.

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