ORIGINAL RESEARCH PAPER

Oncology

AXILLARY CUTANEOUS CARCINOMA WITH APOCRINE DIFFERENTIATION IN LEFT AXILLA – A RARE PRESENTATION.

KEY WORDS: Apocrine differentiation, radiotherapy, axillary carcinoma.

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ABSTRACT

We are reporting a rare case of metastastic axillary carcinoma with apocrine differentiation. It is a slow growing tumor and usually confused as benign skin tumor. A thorough evaluation is required for proper diagnosis. Wide local excision with clear margins is the treatment of choice. In this case, we treated the patient with surgery followed by radiotherapy.

INTRODUCTION

Sweat gland carcinomas are extremely rare carcinomas with apocrine gland carcinoma having around 50 cases reported in the literature worldwide.[2,5,6] The incidence of this type is quite low at 0.0049 to 0.0173 cases/100,000 persons per year.[2] Apocrine glands are abundant in the ano-genital region, the mammary areola and the axilla but also present in scalp, eyelid, ear, lip, chest, nipple, fingers, and toes.[3,5] Patients usually present with slow growing, painless, indurated nodules or plaques and misdiagnosed as benign skin condition. There is a slight male preponderance (5:4, male:female), with no clear defined racial or ethnic predilection.[8]

CASE REPORT:

A 39 year old patient present in November 2019 with left axillary swelling since 1 year which was progressively increasing in size, not associated with pain, itching or bleeding. On examination, there were erythematous non tender raised lesions in the axilla with associated induration of approximately 8×8 cm size. Punch biopsy from the axillary swelling showed metastatic tumor deposits, possibly from breast. Breast ultrasound and MRI did not reveal any lesion in the breast. PET CT report suggestive of FDG avid cutaneous soft tissue density lesion in left axilla of size (4.1×2.0 cm,; SUV max 6.5) with level I, II and III sub-centimetric axillary lymph node (largest measuring 1.8×1.3 cm; SUV max 6.9) with possibility of primary cutaneous neoplasm (? Apocrine Carcinoma). No definite PET/CT evidence of abnormal hypermetabolism elsewhere in the body was found.

Patient was sent to surgery department for excision of the axillary swelling. Patient underwent wide local excision with margins and removal of axillary lymph nodes and flap reconstruction. Surgical pathological specimen (S-13459/19) showing a grey white firm tumor measuring 3×2×1.8 cm with all the margins (anterior, posterior, superior, inferior and deep margins) were free of tumor. The tumor was close to the overlying skin. One lymph node was isolated from the specimen measuring 2.2 cm in maximum diameter and was involved by the tumor.

Microscopic examination showed presence of a cellular tumor arranged in sheets separated by fibrous septae. The individual tumor cells were round to polygonal pleomorphic cells having eccentric nuclei with vesicular nuclear chromatin, prominent nucleoli and abundant granular eosinophillic cytoplasm. Intervening areas were showing lympho-nuclear cell infiltrate and congested blood vessels. The overlying epidermis and perineural involvement by tumor cells was noted. (Figure 1,2,3)

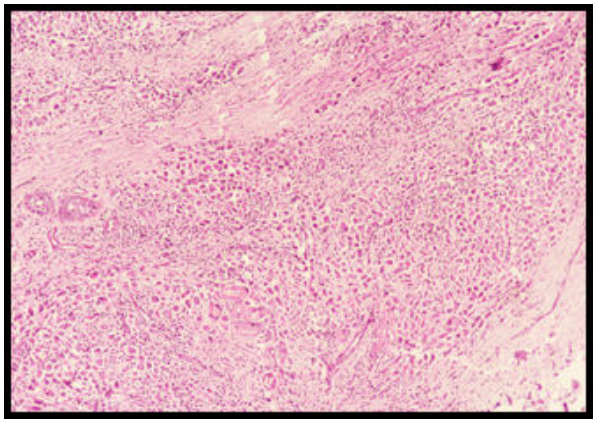

Figure 1- Showing Microscopic Examination (10*)

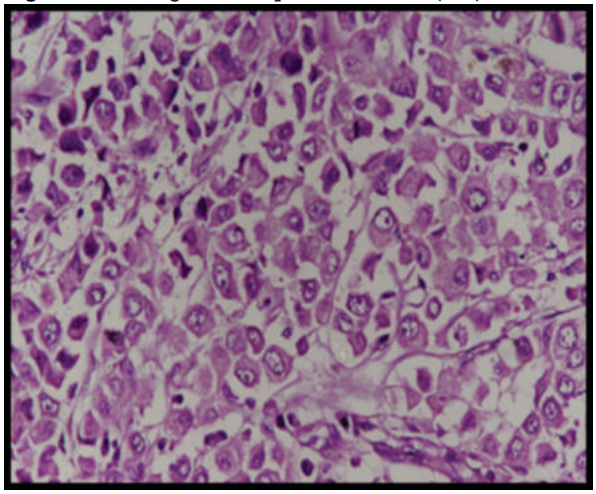

Figure 2- Showing Microscopic Examination (40*)

On immune-staining, the tumor cells were strongly and diffusely positive for cytokeratin 7 (cytoplasmic) and GATA 3 (nuclear). They were negative for CD45, CD30, vimentin, HMB45, CD31, CD68, CK20, CDX2 and TTF1. And they were negarive for ER, PR and Her2 neu. On the basis of histopathology report differential diagnosis included metastatic carcinoma to the left axilla. Based on single axillary lump and no other findings on MRI/ PET-CT and histo-pathological correlation, a diagnosis of carcinoma with apocrine differentiation with axillary lymph node metastasis was made.

Because of the rarity of the case, the standard treatment guidelines are not available, on the basis of previous case reports patient's treatment plan was decided. In view of skin and peineural involvement after surgery, patient is started on adjuvant radiation to the left axilla in the Department of Radiation Oncology.

DISCUSSION

Carcinoma with apocrine differentiation is a rare entity (%) and the diagnosis is usually delayed because of misdiagnosis. It usually presents as slow growing, painless nodule or swelling with involvement of overlying skin confused with benign skin tumor. [1–3]. In the present case, after punch biopsy metastatic carcinoma, likely from breast origin was made initially. Both apocrine tumors and ductal breast carcinoma show similar cellular atypia, sclerotic stroma, subcutaneous and muscular invasion form the ductal structures.[5-9] In immunohisto-chemistry, there are no specific immunohisto-chemistry markers for apocrine carcinoma. Apocrine carcinomas need to be distinguished from metastases, especially from breast cancer as apocrine cells may be present in up to 50% of cases of DCIS, although Eusebi et al[6,14] consider it as an infrequently recognized phenomenon. The detailed clinical history and careful examination of the patient is useful in making the diagnosis. There is tendency of apocrine carcimoma to recur and metastasize to lymph nodes.[1,2]

In this case, there was axillary lymph node metastasis and PET/CT was not showing any evidence of distant metastases. The patient underwent wide excision, lymph nodes dissection with proper margins. According to the literature data sites of apocrine carcinoma metastases include nodes, lungs, liver and bone.[15,16] In the majority of cases deposits from undiagnosed visceral and breast adeno-carcinomas are virtually indistinguishable microscopically from apocrine tumours and must be ruled out before a diagnosis of apocrine cancer is made [7].The recommended treatment of apocrine carcinoma is wide surgical excision along with regional lymph node dissection in the presence of clinically positive nodes. This kind of tumour is rather chemo-resistant and chemotherapy has been infrequently employed[17]. In literature, most of the patients treated with adjuvant radiotherapy and doing well. But the long term data about the prognosis and overall survival are not clear.

CONCLUSION

Due to the rarity of apocrine carcinoma, there are no set guidelines for the management of such cancers. However, wide local excision with clear margins, with or without regional lymph node dissection has been established as the treatment of choice. These tumors are usually chemo-resistant, based on histo-pathological report adjuvant radiation therapy is an option. Further reporting and literature review will help in establishing a diagnostic criteria and the most effective treatment modality.

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