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Case report

Porocarcinoma over scalp: A rare entity

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ABSTRACT

Porocarcinomas are aggressive adnexal tumors with a rare incidence. They are usually seen as a nodular or infiltrating growth over the lower extremities, infrequently over the scalp. They are thought to be arising from a pre-existing lesion and with a long clinical history. Treatment of choice is surgical resection with histopathologically confirmed negative margins. There are chances of local recurrence; hence a regular follow-up is must in these cases. Hereby we present a case of 42 year old male with 2 year history of growth over the right temporo-parietal region of the scalp. Histological confirmation of the diagnosis was done after wide local excision of the tumor. Porocarcinomas are mostly likely to be misdiagnosed clinically; therefore a histopathological correlation is necessary for the confirmation of diagnosis and further management of the patient.

Keywords: Porocarcinoma, poroma, metastasis, margins

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INTRODUCTION

Porocarcinoma is a rare type of malignant adnexal tumor emerging from intra-epidermal ductal part of sweat gland with incidence of approximately 0.005% to 0.01% of skin neoplasms. (4, 1, 3, 2)It is most commonly seen in lower extremitis and head and neck. (1) There is a peak in the incidence of cases in the older age people with no propensity to gender predilection. (1, 3)They typically present as single, firm, reddish nodule or mass with itch, bleed and fast growth. (3) They are most often confused with poromas; which are benign intraepidermal sweat gland tumor and may be prerequisites forporocarcinomas. (4, 6) The treatment of choice is surgical resection of the lesion followed by chemotherapy and radiotherapy. (2, 6)Cases have been reported with local recurrence and distant metastasis.

Here we present a case of Porocarcinoma over scalp in a 42 year old male.

PRESENTATION OF CASE

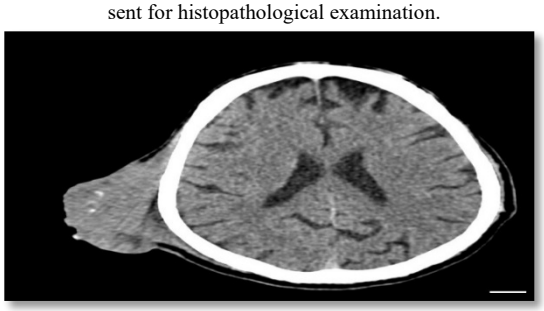
A 42 year old male came to the surgical OPD of a tertiary care hospital in Maharashtra with a 2 year history of growth over the right side of scalp. The swelling had a insidious onset and gradually increased over years and was associated with pain. There was no history of trauma or swelling over any other sites of the body.

On clinical examination, it was found that there was a 8 x 6 cm fungating swelling over right parieto-temporal region, firm in consistency, non-fluctuant, no local rise in temperature, tender with ill-defined margins, multilobulated and ulcerations over the skin. There was active purulent and haemorrhagic discharge from the ulcer. Skin surrounding the growth appeared to be normal. No lymphadenopathy was observed in the patient.

Wedge biopsy was taken from the growth which was reported as Basal Cell Carcinoma of pigmented variant.

On performing routine investigations, the complete blood counts and biochemical parameters were found to be within normal limits. Clinical and radiological investigations were negative for distant metastasis. The reports of Computed Tomography (CT) brain were suspicious of neoplastic etiology most likely angiosarcoma of the scalp.

Wide local excision with margin resection was done and the specimen was sent for histopathological examination.

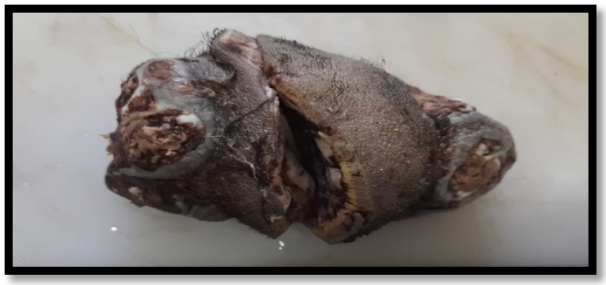


CT BRAIN PLAIN:

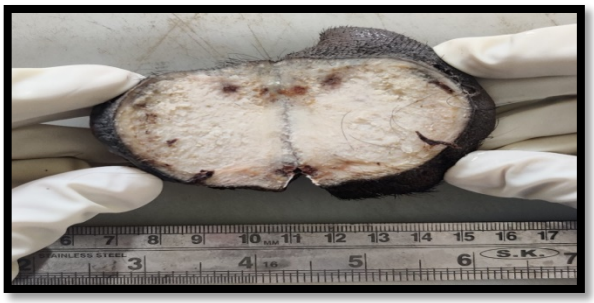
Extracalvarial heterogeneously enhancing soft tissue density lesion with areas of necrosis and calcific foci over right parieto-temporal region suggestive of neoplastic etiology.

On gross examination, two fungating blackish nodules were received with skin and hair attached.

PRE-OPERATIVE PHOTOGRAPH



GROSS PHOTOGRAPH OF THE LESION

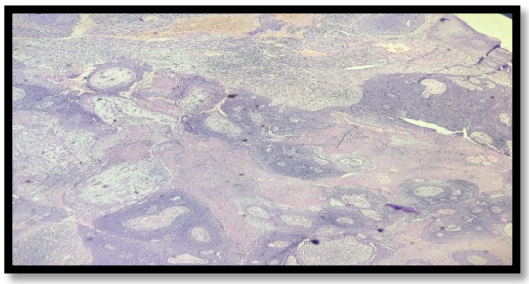


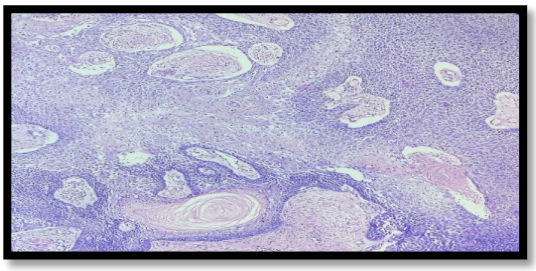
SERIAL SECTION

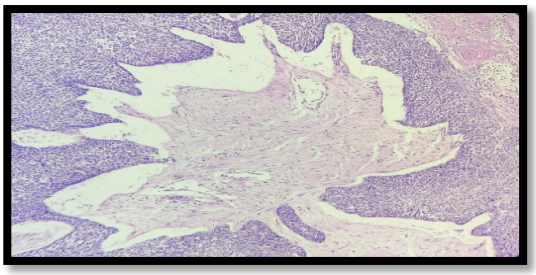
Microscopically, the tumor cells were seen involving the epidermis and dermis. The hypertrophied epidermal lining with the dermis shows areas of haemorrhage and necrosis. There were numerous nests of tumor cells. They were arranged in cords and nests and also in cribriform pattern. The tumor cells had large hyperchromatic nuclei with atypia and prominent nucleoli and frequent mitosis. There were areas of squamous differentiation and dyskeratosis at places. The stroma was fibrotic and hyalinized. Areas of necrosis and inflammatory infiltrates were also seen.

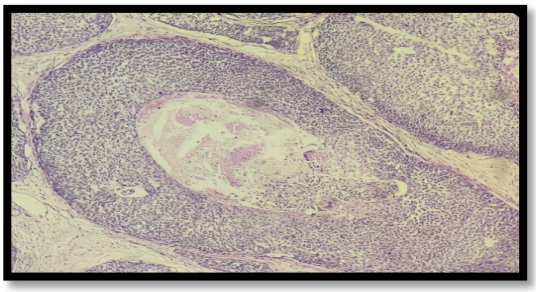
The defect was reconstructed with rotational flap over scalp and split skin grafting.

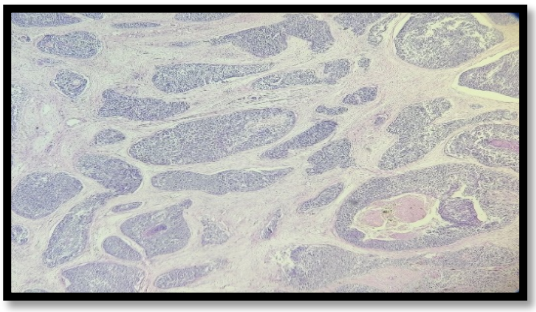
The patient was then adviced radiotherapy and follow-up was done for any local recurrence.

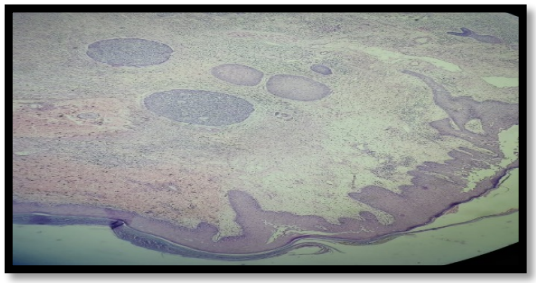












DISCUSSION

Porocarcinoma is a rare malignant adnexal neoplasm of intra-epidermal part of sweat gland. (1, 2) Eccrine procarcinoma was first reported by Pinkus and Mehregan in 1963, though it was Mishima and Morioka who named it in 1967. (1, 2, 5). It is majorly seen in lower extremities and rarely in scalp, face, upper extremities. (2). It affects mostly the elderly population with no gender discrimination. (2). They may arise from pre-existing lesions like eccrine poromas, sebaceous nevus, solar keratosis and risk factors include radiation exposure, chronic light exposure and immunosuppressive conditions like HIV, diabetes and organ transplantation. (3, 4) These lesions present with a long clinical history and the tumor varying in size from 1-10 cm. (5)

Clinically, the tumor presents as a reddish nodular, fungating or ulcerative growth; thus clinically misdiagnosed as melanoma, basal cell carcinoma, squamous cell carcinoma and pyogenic granuloma. (2)

Microscopically, the lesions show nests and cords of polygonal basaloid cells invading into dermis and epidermis. (2, 6) The pattern of invasion of the tumor may be infiltrative , pushing or mixed. (1) The tumor cells have clear cytoplasm, hyperchromatic nuclei and prominent nucleoli and frequent mitosis. Melanin may or may not be present. (2, 6) Dermis may have inflammatory infiltrate. At places, necrosis can be seen. (2)

Porocarcinomas show immunohistochemical staining positivity for CEA, EMA and p53 markers and negative for S-100. (2, 5, 7)

Indicators for poor prognosis include lymph vascular invasion, tumor margin status, high mitotic activity, depth of invasion. (2)

The treatment includes wide local surgical resection of the lesion with histopathologically confirmed clear margins. (1, 2) The chances of regional lymph node metastasis are 20%; whereas that of recurrence is 25%. Hence the patients are mostly given chemotherapy and radiotherapy. (2)

In our case, there was no regional lymph node metastasis and distant metastasis as well. The patient presented with clinical features similar to that of plenty other benign and malignant lesions.

Porocarcinomas are rare and with scalp origin are still less. Therefore it is of utmost importance to confirm the clinical diagnosis with the histopathological diagnosis.

CONCLUSION

Here we are reporting a case of a 42 year old male with porocarcinoma over scalp. Though it has a very low incidence rate and may be seen in lower extremities, primary lesion of the scalp is a rare occurrence. It may often be confused clinically and histopathologically with poromas, basal cell carcinomas and squamous cell carcinomas.

Being an aggressive tumor, early recognition and complete resection of porocarcinoma can reduce the mortality rate.

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