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Case Report

Porocarcinoma presenting as soft tissue swelling on the back: A case report

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Abstract: Porocarcinoma(PC) is a rare malignant ductal carcinoma of sweat gland. It is predominantly seen in elderly patients with mean age of presentation of 67 years. Lesions are not clinically distinctive. It is most often clinically mistaken as squamous cell carcinoma, basal cell carcinoma, Bowen's diseases or pyogenic granuloma. A 65 year old female presented with complaints of swelling on the back since four years, skin biopsy was done with the provisional diagnosis of squamous cell carcinoma. Histopathological examination of biopsy showed features of Porocarcinoma. Later wide excision of the tumor was done.
Keywords: Porocarcinoma, sweat gland, back swelling

INTRODUCTION

Porocarcinoma (PC) which is also known as eccrine porocarcinoma is a rare malignant ductal carcinoma characterized by nests and islands of non-keratinised, cytologically pleomorphic cells related to sweat gland duct. PC accounts to 0.005% of epithelial cutaneous neoplasms [1]. PC can arise denovo or in a longstanding poroma (50%), hidroacanthoma simplex or naevus sebaceous as a malignant transformation [2, 3]. Lesions are most often seen on lower limbs, trunk, head and upper limb in descending order of frequency [2, 4, 5, 6]. Clinically PC lesions are not distinct, being described as verrucous, ulcerative plaque, and nodule or polypoidal growth [5, 7, 8]. It is prone to local recurrence and occasionally associated with lymph node metastasis. Systemic spread is rare [1, 11].

CASE REPORT

A 65 year old female presented with complains of swelling over the sacrococcygeal region since seven years, physical examination revealed an exophytic fleshy growth over the lower back, measured about 3x2cm. External surface was ulcerated with discharge. MRI of lumbar spine a superficial lesion suspicious for malignancy with local infiltration of adjacent soft tissue at L5 on right side. Skin biopsy was done. Histopathological examination of skin showed features of Porocarcinoma. Later patient underwent wide excision of the lesion. Grossly skin covered soft tissue specimen measured 5x3x1.5 cms. External surface of skin showed polypoidal ulcerative exophytic growth measuring 3x2.3cm. Microscopic examination of multiple sections showed infiltrative tumor extending from epidermis to deep dermis. Tumor was composed of broad anastomosing bands of cells. Cells were medium sized having pleomorphic nuclei, coarse chromatin, prominent nucleoli, with scant cytoplasm. Abnormal mitosis, ductal differentiation, intra cytoplasmic lumen formation, infiltrative growth pattern were also seen. Sections taken from margins of wide excision showed features of eccrine poroma.

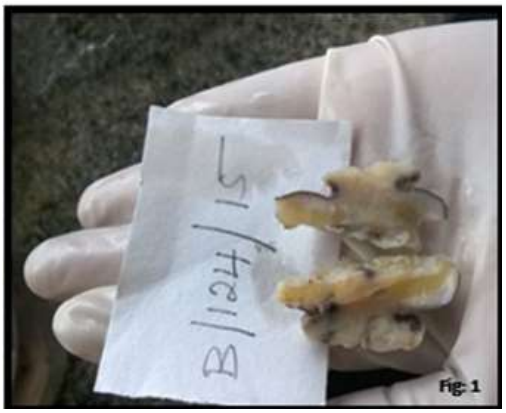

Fig-1: Exophytic grey white lesion

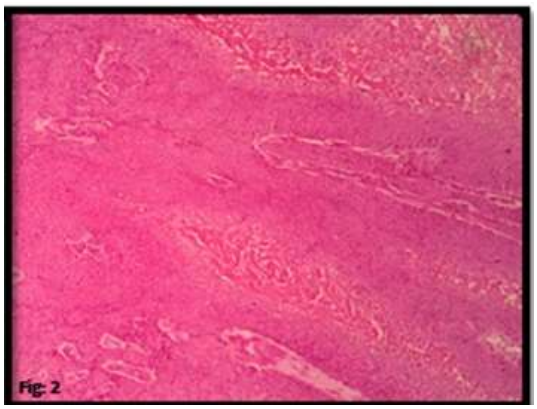

Fig-2: Anatomosing bands of pleomorphic cells (H&E, X 10)

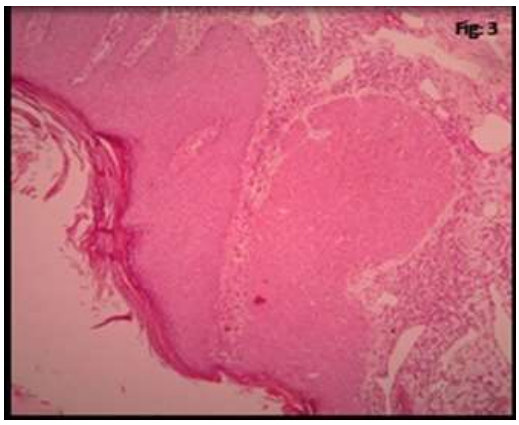

Fig-3: Junction of malignant transformation from benign poroma

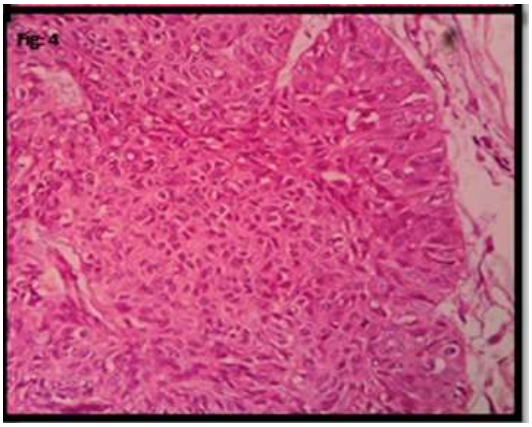

Fig-4: Pleomorphic small cells with acidophilic cytoplasm

DISCUSSION

Porocarcinoma is a rare malignant eccrine sweat gland tumor accounting to less than 0.005% of all the epithelial cutaneous neoplasms [8]. Pincus and Mehregan was the first to report in 1963. They called it as epidermotropic eccrine carcinoma [5]. The term Eccrine porocarcinoma was introduced by Mishima and Morioka in 1969 [1, 3, 5, 7, 8]. It is predominantly seen in elderly patients [2, 6] as in our case. About 50% of tumors occur on buttocks and feet. Upper arm, head, chin, chest, forehead, nose, valve, trunk breast, nail bed are the rare sites of presentation [1-3,8]. PC presenting as soft tissue swelling on the back is very rare. Tumor size can vary from less than one cm to 10 cm [9, 10].

Clinically juxta epidermal PC lesions manifest as indurated or verrucous lesions. Dermal lesions can occur as polyps, plaques, or nodules [9]. The pathogenesis of this tumor is still unknown. One of the studies done has shown over expression of p16 protein with absence of retinoblastoma gene protein. The tumor may remain intraepidermal or may infiltrate dermis, or may occur as a purely dermal lesion.

Epidermal lesions are characterized by nests of pleomorphic small cells with clear to acidophilic cytoplasm with typical ductal lumina [9]. Invasive tumors frequently show continuity with surface epithelium and have infiltrative lower border. The tumor is most typically characterized by down growth of anastomosing bands of epithelium, composed of small pleomorphic cells. Tumor cells may show clear cell, spindle cell, squamous cell and mucus cell differentiation.[10, 11] Surface epidermis usually shows acanthosis as a result of the proliferation of tumor cells in nests [5,9]. Theses tumor cells present in epidermis and dermis can cause cutaneous metastasis and pagetoid pattern of spread. PC may show epidermotropic spread [1, 2]. Lymphovascular invasion, perineural invasion, comedo type of necrosis can also be seen. Pure dermal lesions are characterized by insular or sclerotic growth pattern.

Most common differential diagnosis includes infiltrating squamous cell carcinoma, basal cell carcinoma, Paget's disease and metastatic adenocarcinoma [2, 3, 7,8]. Basal cell carcinoma shows peripheral palisading, intercellular bridges, which are not seen in PC. Relative sparse epidermal involvment with more dermal infiltration feature of PC help in differentiating it from Paget's disease [3, 5]. Features like ductal differentiation, intracytoplasmic lumina, absence of keratinization, help in differentiating PC from squamous cell carcinoma [5]. These features can be highlighted using immunohistochemistry with EMA (Epithelial Membrane Antigen) or CEA (carcino membrane antigen). EMA, CEA and pan-cytokeratin are the commonly used immuno markers in the diagnosis of eccrine porocarcinoma [3, 5].

Prognosis of PC depends on many factors. Tumor stage appears to be highly significant in predicting prognosis. Regional lymph node positivity is associated with 65% mortality. Nearly 20% of PC recurs after excision. An infiltrative tumor margin has influence on local recurrence [10]. This tumor is also known for regional lymph node metastasis [11,12]. Distant metastasis[2, 13,14] increased mitosis, lymph vascular invasion, tumor depth more than 7mm are associated with poor prognosis [3,10].

REFERENCES

1. Vandeweyer K, Renoirte C, Musette S, Gilles A; Eccrine Porocarcinoma: A case report. Acta chir belg 2006; 106:121-23
2. Marone U, Caraco C, Anniciello AM, Monta GD, Chiofalo MG, Di Cecilia M.L *et al.;* metastatic eccrine porocarcinoma: report of a case and review of the literature. World Journal of Surgical Oncology 2011; 9:1.
3. Requena L, Kutzner H, Hurt M.A, Santa Cruz D.J, Mehregan D.A, Mehregan D.R; Malignant tumors with apocrine and eccrine differentiation. World Health Organization classification of tumors. Pathology and Genetics Skin Tumors, IARCPress Lyon, 2006; 135-138.
4. Vleugels FR, Girouard SD, Schmults CD, Ng AK, Russell SE *et al.;* metastatic eccrine porocarcinoma after Mohs micrographic surgery: A Case report. Journal of clinical oncology, 2012; 30(21): e188-e191.
5. Chang O, Elnawawi A, Rimpel B, Asarian A, Chaudhry N; Eccrine porocarcinoma of the lower extremity: A case report and review of literature. World Journal of Surgical Oncology 2011; 9:94.
6. Tumors of the sweat glands. In: Brenn T, Mekee PH, editors. Pathology of the skin with clinical correlations, 3rd Ed, Philadelphia: flsevier Mosby; 2005.1619-1627.
7. Arsian D, Tatl AM, Uysal M, Kaplan MA; Eccrine porocarcinoma: A case report and literature review. Journal of clinical and experimental investigations 2013;4(3): 370-73
8. Kok KYY, Telisinghe PU; Eccrine porocarcinoma. Brunei Int Med J 2011;7(2):93
9. Tumors of the skin. In: Daniel J, Cruz S, Walsh SN; editors. Diagnostic histopathology of tumors, 4th ed, Elsevier saunders; 2013; 1716-1723.
10. Robson A, Greene J, Ansari N, Kim B, Seed PT, McKee P.H*et al.;* Eccrine porocarcinoma- A clinicopathologic study of 69 cases. Am J Surg Pathol 2001; 25(6): 710-20.
11. Mehregan AH, Hashimoto K, Rahbari H; Eccrine adenocarcinoma – A clinicopathologic study of 35 cases. Arch Dermatol, 1983; 119:104-114.
12. Baptista AP, Tellechea O, Reis JP, *et al.;* Eccrine porocarcinoma: a review of 24 cases. Ann Dermatol Venereol 1993; 120: 107-15.
13. Goel R, Contos MJ, Wallace ML; Widespread metastatic eccrine porocarcinoma. J Am Acad Dermatol, 2003; 49:252-254.
14. Kurashige Y, Minemura T, Nagatani T; Eccrine Porocarcinoma: Clinical and pathological report of eight cases. Case Rep Dermatol, 2013; 5(3): 259-266.