

Eccrine Porocarcinoma: A Case Report

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ABSTRACT

Eccrine porocarcinoma is an extremely rare malignancy of the eccrine sweat gland. It is believed to arise from the intra-epithelial portion of eccrine sweat glands. It can either arise de novo or it can develop in a long standing eccrine poroma. It often occurs in the elderly, with the mean age of occurrence being 67 years. The tumour favours extremities, particularly the legs and feet. The propensity to form multiple cutaneous metastases is an unusual feature of eccrine porocarcinoma. It is also associated with visceral metastasis, resulting in death. An early diagnosis and prompt treatment are thus essential, owing to the aggressive behaviour of the tumour. Keeping in view its rarity of occurrence, we are hereby presenting a case of eccrine porocarcinoma which occurred in a 55-year-old female.

Keywords: Eccrine porocarcinoma, Sweat gland tumour, Malignant

CASE SUMMARY

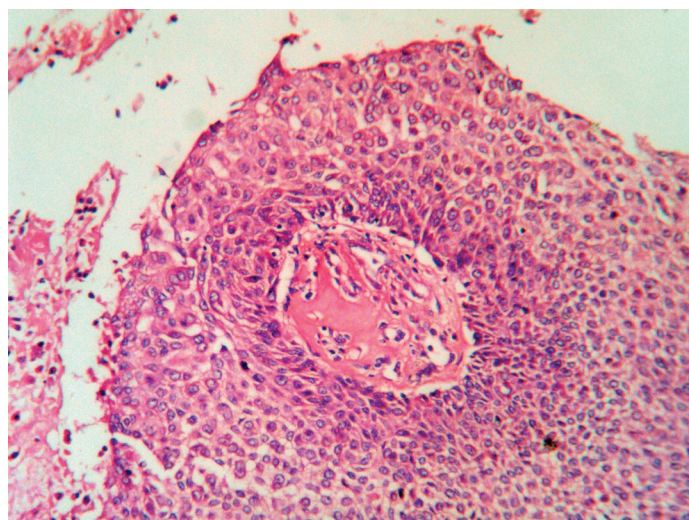
A 55-year-old lady presented with a slow growing, painless, pigmented lesion on the lateral aspect of the left lower thigh, which was present since 3 months. The lesion was nodular, pigmented and it measured 2x1 cm. It had restricted mobility in all directions and an irregular surface. Borders were not well made out. No lymph nodes were involved. General examination revealed no significant findings. The differential diagnoses proposed by the clinician were malignant skin appendageal tumour and primary squamous cell carcinoma. A wide excision of the lesion was done and the specimen was subjected to a histopathological examination.

Microscopy revealed large lobules of polygonal tumour cells in the epidermis, extending upto the dermis [Table/Fig-1]. These tumour cells contained large hyperchromatic, irregular nuclei, prominent nucleoli and scant pale cytoplasm. Also seen were frequent mitoses [Table/Fig-2]. Cystic luminal spaces were present within the epidermal and dermal tumour cells [Table/Fig-3]. Focal areas within the tumour showed a squamous differentiation. Based on these findings, a histopathological diagnosis of Eccrine Porocarcinoma was arrived at.

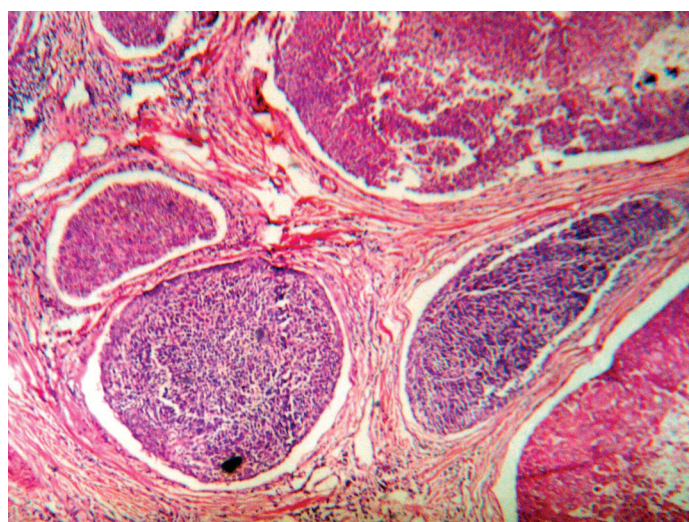
DISCUSSION

Eccrine porocarcinoma is a potentially lethal neoplasm. It was previously known as Eccrine Adenocarcinoma or Malignant Eccrine Poroma. It occurs most often in the elderly, with the age at diagnosis being between 60 and 80 years [1]. It commonly involves the hands and feet, but involvement of rare sites such as scalp, face and eyelids have also been reported in literature [2-4].

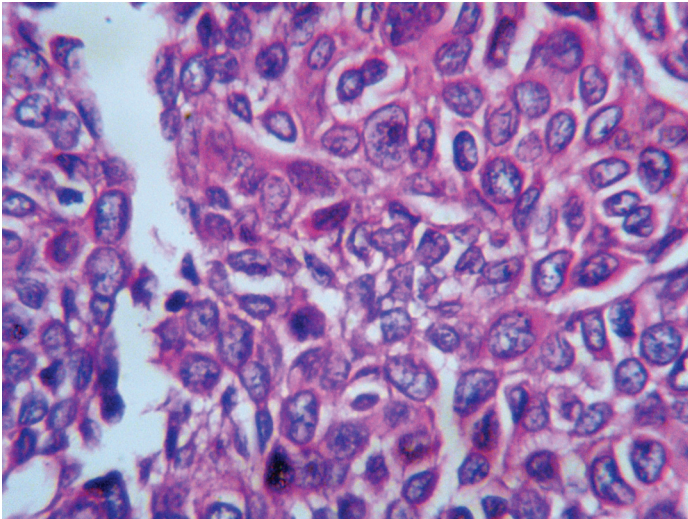
The clinical appearance is non-specific and a majority of tumours are diagnosed histologically. It might often have a pink, moist, shiny surface which can offer a diagnostic clue. It may also appear as a nodule, a dome-shaped, infiltrated or erosive plaque or as a polypoidal growth that tends to ulcerate. It usually grows slowly, but it might often show an accelerated growth phase [3]. Most of the clinical findings in the present case were in concurrence with these findings. Since no specific clue for diagnosis was available on clinical examination of the present case, the diagnosis was clinched only based on histopathological examination.



[Table/Fig-1]: H&E (40x) - Histopathological section from the tumour showing tumour cells with frequent mitoses and cystic luminal spaces



[Table/Fig-2]: H&E (10x) - Histopathological section showing tumour extending from the epidermis into the dermis



[Table/Fig-3]: H&E (100x) - Histopathological section from the tumour showing large polygonal tumour cells with hyperchromatic irregular nuclei and prominent nucleoli and scant cytoplasm

The clinical differential diagnoses include cutaneous squamous cell carcinoma, cutaneous lymphoma, Extramammary Paget's disease, Bowen's disease, Cutaneous metastasis, Amelanotic melanoma or other primary skin appendageal tumours [1].

Histopathology usually reveals intra-epidermal and dermal nests and cords of epithelial cells with pale cytoplasm. The tumour masses form clearly demarcated and frequently rounded nests of polygonal cells with pleomorphic and irregularly shaped nuclei, prominent nucleoli and numerous mitotic figures. There is a sharp demarcation between the epidermal nests of cells and the adjacent epidermal keratinocytes. The overlying epidermis may be acanthotic. Both the single tumour cells and nests of cells may involve the epidermis in a pagetoid fashion. Keratinization is usually absent. Intercellular bridging between the tumour cells is inconspicuous. The tumour cells may contain glycogen [5,6].

Immunohistochemistry has shown that the tumour nodules stain with antibodies to pan cytokeratin. Tumour cells may stain paler

than adjacent epidermal keratinocytes. Ductular structures within the tumour stain positive for CEA and EMA [5,6].

Eccrine Porocarcinoma has a metastatic potential and a propensity for local recurrence and it is noted to have invade the dermal lymphatic vessels early in the disease process, in 15% of the cases. This feature was not seen in the present case. Though metastasis is rare, the tumours which metastasized showed an increased mortality rate of 75-80%, which was noted in larger case series [5,6].

The treatment of choice in all the cases is wide excision of the lesion. In the present case, since the clinical diagnosis of a malignant skin tumour was suspected, the surgeon opted for a wide excision, followed by a histopathological examination, after which the patient was referred to a higher centre for further management and was lost for follow up. Moh's micrographic surgery has proved to be a more effective modality of treatment for eccrine porocarcinomas than local wide excisions [7].

CONCLUSION

Histopathology remains the gold standard for diagnosing this potentially fatal neoplasm, since it helps in determining the choice of treatment and in predicting the prognosis.

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