

Case Report

Adenocarcinoma of sweat gland: case report and review of literature

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Received: 18 June 2015

Accepted: 06 August 2015

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ABSTRACT

Sweat gland carcinoma is a rare malignant tumour, first described in 1865, with approximately 220 cases reported in last 30 years. Lower limbs are the most common site of involvement, followed by the upper extremities, and the head. Trunk is rarely involved. Five histological types have been described, most common being porocarcinomas followed by ductal carcinomas, adenoid cystic carcinomas, syringomatous carcinomas and mucinous carcinomas. These are aggressive tumours with potential for distant metastasis. Wide surgical excision is the treatment of choice and the overall prognosis is poor. Here we report another case of sweat gland adenocarcinoma with no evidence of metastasis.

Keywords: Sweat gland, Eccrine gland, Adenocarcinoma, Carcinoma, Malignancy

INTRODUCTION

Sweat gland carcinoma, a rare malignant tumour was first described by Cornil in 1865.¹ It is often not diagnosed clinically and is encountered as an incidental finding at histology of the resected specimen. They show aggressive behavior with distant metastases. Lymphatic metastases are common, followed by involvement of bone, lung and skin. These tumours show cytokeratin and are positive for carcinoembryonic antigen. The overall prognosis of these tumours is poor.²

CASE REPORT

A 60 year old lady presented to us with a swelling on the inner canthus of left eye (Figure 1). The swelling was dark in colour, with irregular edges and hard consistency. An incisional biopsy was taken which reported as adenocarcinoma of sweat gland. There was no evidence of lymphatic or distant metastasis. Patient was treated by wide excision and skin grafting. Histopathological examination of the resected specimen confirmed the diagnosis of sweat gland adenocarcinoma of apocrine

origin (Figure 2) with tumour free margins. The patient had an uneventful postoperative recovery (Figure 3). She has been on follow up for last 6 months with no evidence of recurrence.



Figure 1: Adenocarcinoma of sweat gland.

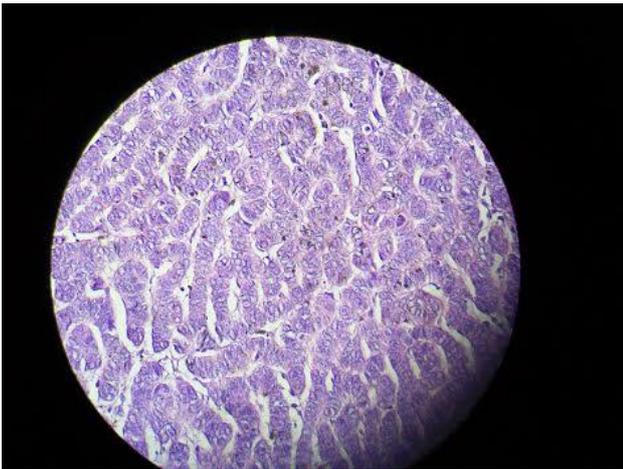


Figure 2: Histopathological picture.



Figure 3: Patient during follow up.

DISCUSSION

The sweat gland neoplasms comprised 0.05% of all surgical pathological specimens.³ Primary adenocarcinoma of sweat glands is a rare tumour; approximately 220 cases have been reported in the last 30

years.⁴ The incidence is slightly higher in females and the highest incidence is in the sixth and seventh decades of life.⁵ They lack distinctive clinical features and the histological appearances are often varied, hence diagnosis is difficult and usually late.⁶ Topographically, the tumour is located at the lower limbs (32.9%), the upper extremities (28%), and the head (26%), involvement of the trunk is rare. Diagnosis can be complicated as the carcinoma is a rare entity, with no correlation of its histologic classification and biologic presentation.⁷ Cytologic atypia and mitotic figures are rare and the cell of origin is considered to be a pluripotential adnexal keratinocyte which is capable of both follicular and sweat gland differentiation.⁸ A low incidence of loss of heterozygosity at chromosome 17p has been noticed along with p53 alterations.²

Yugueros P et al. in their study of 55 cases between 13 to 85 years mean being 59 years found that microcystic adnexal carcinoma was the most frequent type. There was no difference in recurrence or survival when gender, age, tumor location, or histologic pattern was evaluated. The only predictive factor for distant metastases and/or death ($p < 0.003$) was histologic grade.⁴

Carcinoma of sweat gland are classified as follows:⁹

- 1) Porocarcinoma is the most common type and represents a broad spectrum of epidermal, juxtaepidermal, and dermal malignant tumours composed of atypical eosinophilic and clear cells.
- 2) Eccrine ductal adenocarcinomas; these tumours strongly resembled infiltrating ductal adenocarcinomas of the breast, and are thus classified as ductal. They frequently recurred and were capable of metastases.
- 3) Adenoid cystic carcinoma of sweat glands is very rare. In 1998, Kato et al counted 37 cases in the literature.
- 4) Syringomatous carcinoma (microcystic adnexal carcinoma) represents a spectrum of infiltrative epithelial tumours that resemble syringomas.
- 5) Mucinous carcinomas share two elements with adenoid cystic carcinomas: rarity and occurrence in glands of several different anatomic sites.

Wide surgical excision with complete removal of the neoplasm is the standard therapy and this appears to offer the best chance of cure. Radiotherapy may be used in case of local relapse or regional lymph node involvement. Systemic chemotherapy has not proved to be effective in the treatment of this tumour.¹⁰ Although Swanson et al. have reported a case with complete response to 5-fluorouracil treatment.¹¹ Overall a five-year disease-free survival for these tumours is less than 30%.

CONCLUSION

Sweat gland carcinomas are rare cancers which can be considered as clinico-pathological dilemmas with an unpredictable biological behavior and a poor prognosis. Surgery in the form of wide local excision and lymph node dissection is the mainstay of treatment. Role of chemotherapy and radiotherapy is yet to be established. Treating physician should be aware of this entity to ensure an early diagnosis and treatment and distinguish it from other more common forms of skin malignancy.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Ekka NMP, Bodra P, Malua S, Jha RK. Adenocarcinoma of sweat gland: case report and review of literature. *Int J Res Med Sci* 2015;3:2453-5.