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Eccrine Acrospiroma: A Case Report and Review of Literature.

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Case Report

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ABSTRACT

Eccrineacrospiroma, better known as eccrineporoma, is a benign cutaneous tumour of sweat duct origin, seen on microscopic examination. Acrospiromas are usually 1 to 2 cm in size but they may attain sizeable proportions, on rare occasions, they may undergo malignant transformation. Their clinical aspect can masquerade as some other nodular and cystic lesions. Here we report a case of eccrineacrospiroma of the skin surface of left breast in a 55 years old woman, which was previously diagnosed as a simple breast cyst on fine needle aspiration cytology.

INTRODUCTION

Eccrine acrospiromas are distinct sweat gland tumours that present as solitary plaques, nodules, or erythematous papules. In 1969, Johnson and Helwig introduced the term 'eccrine acrospiroma' to define a cutaneous neoplasm that had been previously reported under a variety of terms, for example 'eccrineporoma' which was described first in 1956 by Pinkus H and others^[1,2]. Other synonyms of eccrine acrospiroma are clear cell, nodular, superficial or solid-cystic hidradenoma; clear cell papillary carcinoma; clear cell myoepithelioma; porosyringoma; large cell sweat gland adenoma; or basal cell carcinoma of sweat gland origin^[3]. They affect all age ranges and involve any area of the body, and majority of them are benign^[4]. We report a case of eccrine acrospiroma in a 55 years old woman over the skin surface of left breast.

Case Report

A 55 years old woman came from surgical out-patient door of Rajindra Hospital Patiala for fine needle aspiration cytology of lump left breast in the lower outer quadrant, with history of gradually increase in size since one year. Full blood count, liver and kidney function tests, chest x-ray and urine examination all were normal. Clinical diagnosis of sebaceous cyst was made and after FNA on cytological examination also the features of simple breast cyst were noted. After one week, biopsy of the excised mass from the same site had been received in the department of pathology.

Gross and Microscopic Examination

Grossly, received grey to brown globular soft tissue piece measuring 2.5×2.0×1.0 cm in size, the cut surface of which was also grey to brown in colour, look solid and processed into three pieces as a whole part.

Microscopically, shows nests and lobules of low cuboidal cells with variable amount of cytoplasm which at places was granular to clear in form. Areas with squamous metaplasia and keratin pearls

formation were also appreciated along with increased vascularity in the tumour. Final diagnosis was consistent with eccrine acrospiroma. (Fig 1&2)

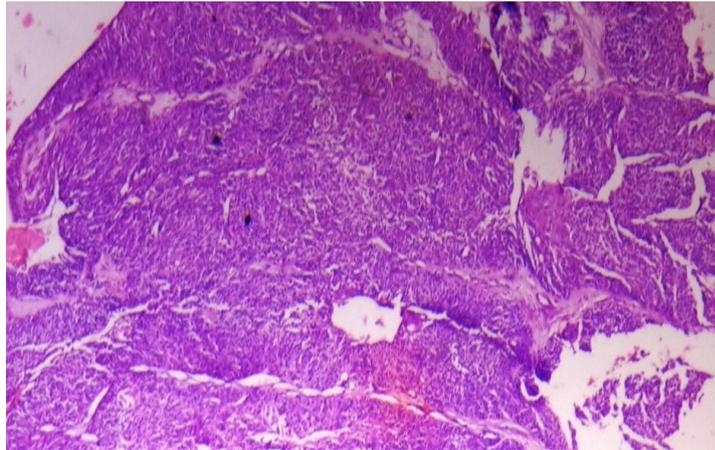


Figure 1: H&E section under 5x show tumour consists of broad anastomosing bands of uniformly small cuboidal cells. Ductal lumen lined by single row of cuboidal cells extends horizontally through the tumour.

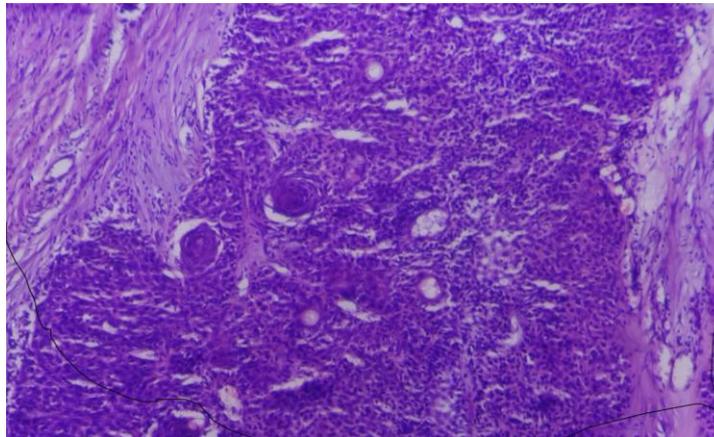


Figure 2: H&E section under 10x show nests and lobules of low cuboidal cells, areas of squamous metaplasia and keratin pearls formation also seen.

DISCUSSION

Eccrine acrospiroma occurs as a single nodular, solid or cystic, occasionally elevated cutaneous mass. As a rule, the skin over the tumour is either flesh-coloured, red or blue, and is smooth, but sometimes it is thickened and papillary.^[5] The tumours vary in size from 0.5 to 10 cm, but most measure from 1 to 2 cm and the median size of eccrine acrospiromas is only 1 cm ^[4,5].

Giant lesions are rare, but examples of such include a 12 cm tumour of the left thigh and a tumour of similar size on the dorsum of the left hand. It was mentioned in the literature that longstanding tumours may grow to be larger than 10 cm, yet still be benign ^[4]. In a report of three cases of benign giant eccrine acrospiroma, the smallest lesion was 5×3 cm in size and the largest one was 9.5 cm in its largest dimension ^[4]. These tumours usually occur in adults. Histologically, these lesions are sub-classified according to the location of tumour in relation to the epidermis, with those confined primarily in the epidermis as epidermal acrospiroma or just eccrineporoma. Those which are confined exclusively to the dermis or have minimal connection to the epidermis are termed as dermal acrospiroma or hidradenoma ^[6]. Large eccrine acrospiromas may foster concerns of malignancy, but malignant eccrine acrospiromas are rare usually of moderate size. In a review of the literature, the largest dimension specified for malignant acrospiromas ranged from 4 to 10 cm ^[4,7]. Thus, size cannot be used to differentiate between benign and malignant acrospiromas.

Acrospiromas occur on all areas of the body, but are slightly more common on the trunk (40%), followed by the head (30%) and extremities (30%) [1,8,9]. Acrospiromas predominate in women by ratio of approximately 2:1 and occur more commonly in middle-aged and older adults, with a range of three to 93 years [4]. Approximately one-sixth of the lesions show drainage, and about the same number are painful [5]. There is also an occasional association of pruritis (7%) with these lesions.[3] The clinical differential diagnosis consists of hemangioma, squamous cell carcinoma, melanoma, metastatic tumours and other adnexal tumours [3].

Malignant acrospiroma comprises a group of rare epidermal, juxtaepidermal, and dermal ductal carcinoma occurring over the head and neck, anterior trunk, or extremities [10]. Malignant acrospiromas are highly invasive, often with significant lymphatic and distant metastasis [7]. Cellular atypia, frequent mitoses, infiltrative local growth, areas of necrosis, perineural invasion and angiolymphatic invasion are the characteristics of malignant acrospiromas [4,7]. Moreover, malignant acrospiromas tend to be predominantly solid, without the grossly cystic nature that seems to be largely responsible for the production of the giant benign tumours [4].

Treatment for benign acrospiromas consists of surgical excision. In a series of 319 tumours that five malignant lesions, there were 38 recurrences after surgical excision and the recurrent tumours were neither more aggressive nor more atypical than the primaries, and differed only in their location, which was deeper in the dermis [4]. Inadequate excision was considered to be the major cause of recurrence.[4] In addition to wide local excision, regional lymph node dissection is recommended after the diagnosis of malignant acrospiroma, even in the face of a clinically negative lymph node examination [7]. In our case as the fine needle aspiration cytology show simple breast cyst, surgeon fully excised that because he or she could not be certain about the biological behaviour of the lesion. But on histopathological examination it was confirmed that this is benign eccrine acrospiroma, thus, the prognosis for benign acrospiroma is good and this type of lesion is not associated with recurrence when adequately excised.

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