

Case Report

Eccrine Spiradenoma: An Uncommon Breast Tumour

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Abstract

Eccrine spiradenoma is a benign tumour of the sweat gland. Eccrine glands can be found almost everywhere but are mostly concentrated on the palms, soles and the axillae. Lesions involving the breast are rare. We present a case of a 13-years-old Malay girl with eccrine spiradenoma of the breast. The clinical presentation and histological features are being described.

Keywords: breast neoplasms, eccrine, sweat glands, skin neoplasms, benign

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Introduction

Eccrine spiradenoma was first described by Kersting and Helwig in 1956 (1). It is an uncommon, benign tumour arising from the cutaneous sweat gland. It has no gender predilection and commonly affects young adults. The tumour is usually found on the trunk and extremities. It is usually solitary in nature, about 1-2 cm in size. Occasionally, it may be associated with pain and tenderness.

Eccrine spiradenoma can be associated with Brooke-Spiegler syndrome, which is an autosomal dominant disorder characterized by a high affinity to form multiple adnexal neoplasms, especially trichoepitheliomas, cylindromas, and spiradenomas. However, in most cases it occurs sporadically.

Malignant transformation of eccrine spiradenoma was described by Dabska in 1972 (2). It is an extremely rare condition, accounting for 0.005% of all skin tumours (3).

Case Report

Our patient was a 13-year-old Malay girl, who presented with a two years history of left painless

breast lump, which slowly grew in size over the years. Otherwise, there was no significant personal or family history. On examination there was a 4x4 cm hard lump in the left upper inner quadrant of the breast. The overlying skin was bluish in colour. The lump felt superficial but a deeper connection to the breast tissue was also felt. Ultrasonography examination of the left breast revealed a well-defined nodule measuring 3.8 x 4.1 x 2.9 cm in size. The nodule has a solid and cystic component with multiple vascular channels seen within the solid component (Fig. 1). Fine needle aspiration yielded 10 cc of brownish fluid which was later sent to the laboratory and interpreted as cystic content. A wide local excision was done and intra-operatively the lesion had a maroon-bluish colour with spots of calcifications on its surface. Histopathological examination revealed lobules of solid and cystic tumour made up of two types of epithelial cells: cells with small dark nuclei and cells with vesicular nuclei and clear cytoplasm. Deposits of hyaline material were noted around the cell islands. No increase in mitosis or nuclear atypia was observed. The histomorphological features were in line with eccrine spiradenoma. The patient recovered well post surgery and was being followed up with yearly ultrasound examination of the breast. There has been no recurrence of the tumour on the latest follow up.



Figure 1: Ultrasonography image of the left breast lump.

Discussion

Eccrine spiradenoma is a rare tumour of the skin. When the clinical presentation is that of a breast neoplasm, diagnosis can be difficult. Classically eccrine spiradenoma presents as a dermal or subcutaneous nodule. A pink or blue hue overlying the nodule is suggestive, but clinical diagnosis alone cannot give accurate diagnosis.

Characteristic histological findings of eccrine spiradenoma are the basaloid cells can be composed of two distinct morphologies with one cell type that is larger, pale, and with an ovoid nuclei and the other type that is smaller, dark, and with a compact hyperchromatic nuclei.

Malignant eccrine spiradenoma is suspected in patients with rapid enlargement of the nodule. Changes in colour and increase in number of nodules are also suggestive. Histological findings may include atypical cells, increased in mitotic counts and loss of typical lobular pattern. Malignant eccrine spiradenoma arising in the breast have been described by few authors (4, 5).

The mainstay of treatment for both benign and malignant eccrine spiradenoma is surgical excision. Other options, such as radiotherapy, carbon dioxide laser ablation, or chemotherapy, are reserved for cases

in multiplicity or that are malignant. Due to the potential for malignant transformation, wide surgical excision offers the most conservative treatment choice. Recurrences after excision of breast eccrine spiradenoma have been reported (6).

The embryologic origin of the breast is related to the salivary and sweat glands. In fact, the breast has been described as a modified sweat gland. Thus, breast neoplasms may show differentiation toward these tissues, although this is a rare event. Therefore, the breast is capable of originating benign and malignant tumours of eccrine sweat duct phenotype.

In summary, we described a rare case of a sweat gland tumour of the breast. Eccrine spiradenoma should be considered in the differential diagnosis of cutaneous and subcutaneous lesions of the breast.

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