

## **Spiradenoma Breast: A rare pathology.**

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### **Introduction:**

Spiradenoma, also known as spiroma or eccrine spiradenoma, was first reported in 1956 by Kersting et al<sup>1</sup>. They are usually benign dermatological conditions which are characterized, clinically, as a solitary, deep-seated, painful, slow-growing, dermal nodule of approximately one centimeter, occurring on the ventral surface of the body. It can occur in infancy but most commonly arises in persons aged 15-35 years and is seen equally in both genders. Eccrine spiradenomas are very rare in the breast and only a few cases have been reported in the literature<sup>2</sup>. A defective tumor suppressor gene is believed to result in the development of spiradenomas.

We report here on the case of an eccrine spiradenoma in the breast of a 47-year-old gentleman who presented to us with a painful mass in his left upper breast which was first diagnosed as an epidermal inclusion cyst based on the imaging findings and the mass's superficial location. The subsequent histopathology confirms it to be a benign eccrine spiradenoma.

### **Keywords:**

Spiroma, Eccrine Spiradenoma, Breast.

### **Case Report:**

A 47-year-old gentleman was seen in the breast clinic for a painful palpable lesion involving the left breast which was gradually increasing in size. The physical examination revealed a tender, immobile mass in the left upper breast. A breast ultrasound examination revealed a well-defined hypoechoic mass in the subcutaneous layer. Hence it was diagnosed as an epidermal inclusion cyst based on the imaging findings and the mass's superficial location.

The patient underwent surgical excision for pain relief and due to the patient's worry for the lesion and the potential for malignancy. The surgical specimen showed a 1 cm in size lesion present in the dermis without obvious continuity with the epidermis. The histopathological examination confirmed the diagnosis of a benign, adnexal skin tumor in the breast, and this

was all consistent with an eccrine spiradenoma which was excised completely.

### **Discussion:**

The embryologic origin of the breast is related to salivary and sweat glands. Thus, breast neoplasms may show differentiation toward these tissues. Eccrine spiradenomas may present as painful or painless solitary masses and are usually benign tumors. Most spiradenomas go unnoticed for many years to decades. Spiradenomas can occur in Brooke-Spiegler syndrome, which manifests with cylindromas, spiradenomas, and trichoepitheliomas<sup>3</sup>. An eccrine spiradenoma is composed of two types of cells. Basaloid cells are small and stain dark while the other cells are large and stain pale. At low power magnification, a spiradenoma appears as a solid neoplasm composed of a single mass or a few masses of basaloid cells. At higher magnification, two distinct populations of neoplastic epithelial cells can be seen as dark and pale cells<sup>4</sup>.

It is very rare for this benign tumor to transform into a malignancy and they generally arise from long-standing benign eccrine spiradenomas<sup>5</sup>. Dabska in 1972 reported first case of malignant spiradenoma<sup>6</sup>. The cause of malignant spiradenomas is unclear. The expression of *TP53* seems to be increased in malignant spiradenomas, but the significance of this observation is unclear.

A skin biopsy helps in establishing the diagnosis of these tumors. Fine-needle cytology of a spiradenoma of the breast can be performed to aid in diagnosis<sup>7</sup>. The presence of metastatic foci in the case of malignant spiradenoma can be assessed by CT or MRI scans.

The best and really only treatment is surgical excision for both benign and malignant ones. The lesions do not tend to recur after surgery.

Due to the infrequency of occurrence of this type of malignancy, especially of the breast, no guidelines are available for the management and treatment of malignant spiradenomas. The recommended treatment at this time is complete excision and patient follow up. It may be beneficial to send the specimen for hormone receptor sensitivity to better determine the characteristics of the tumour. One case was reported where the patient received Tamoxifen as part of the treatment<sup>8</sup>. At this time, there is no proven role of radiation and chemotherapy in management.

### **Conclusion:**

Spiradenoma is a rare condition world wide and should be considered as one of the differential diagnosis for the lesions presented in the breast. The surgical excision is the mainstay of the treatment for both benign and malignant varieties.

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