

Recurrent Clear Cell Hidradenoma of the Breast: A Case Report

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Citation

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Abstract

Clear cell hidradenomas of the breast are extremely rare tumors. We report a case which was initially diagnosed to be a papilloma. It was excised when it recurred. Correct diagnosis was made by immunohistochemistry.

INTRODUCTION

Clear cell hidradenomas are uncommon and very slowly growing tumors of sweat glands. They are commonly seen on the face and the upper extremities. They are a rarity in the breast and very few cases are reported. Diagnosis is commonly made after excision because of their rarity and lack of characteristic clinical findings.

CASE REPORT

A 49-year-old lady presented to us with a recurrent lump in the left breast of 3 years duration. It was cystic in nature and it persisted despite multiple aspirations. Each time the aspirate revealed sheets of cohesive clear cells. A similar lump was removed 6 years ago. Histology at that time showed it to be a duct papilloma and no special stains were done. This time on examination, there was a 3x3cm, well defined, smooth, firm lump beneath the areola at the 5 o'clock position. Ultrasonogram and mammogram confirmed it to be a cyst with a solid component. Core biopsy revealed it to be a recurrent benign papillary lesion of uncertain nature. Histology was very much similar to the lump previously excised. She underwent lumpectomy and final histology revealed solid nodules of cohesive cells with clear and vacuolated cytoplasm with small central nuclei (Fig. 1). The lesion was also noted to have pushy margins with focal infiltration of the surrounding fibrous tissue. Immunohistochemistry of clear cells showed glycogen but not mucin in the cytoplasm. The lesional cells were positive for CK7 (Fig. 2), CK14 (Fig. 3) and CK5/6 and negative for CK20, vimentin, progesterone receptors, S100 and CD10. They confirmed the lesion to be a clear cell hidradenoma (1).

DISCUSSION

Clear cell hidradenoma of breast is a very rare tumour. It shares features with its counterparts elsewhere in the body. It is usually seen in females between the 4th and 8th decade of life. Like in our case they usually present as 0.5-1cm solitary cystic lesions and occasionally leak serous fluid. Aspirates usually reveal sheets of cohesive clear cells but in our case they were attributed to the initial diagnosis of papilloma and hence the diagnosis was missed.

The diagnosis is made by finding clear cells containing glycogen and round nuclei and, polyhedral cells with basophilic nuclei. Malignant change is rare and is seen in around 5% of cases. It is suspected when lesions grow rapidly and ulcerate. However, neither clinical behaviour nor histological features can predict malignant change. Even benign appearing lesions tend to recur. Hence, all these lesions need to be treated aggressively (2). In our case if the diagnosis of hidradenoma had been made at first, the recurrent lesion would have been treated by further excision rather than by recurrent aspiration.

When clear cells are seen, metastatic disease and primary skin tumors with follicular differentiation, sebaceous differentiation, or sweat gland differentiation as well as cutaneous metastases from renal cell carcinoma must be considered. Immunohistochemistry is commonly used to differentiate these conditions.

Figure 1

Figure 1: H&E staining

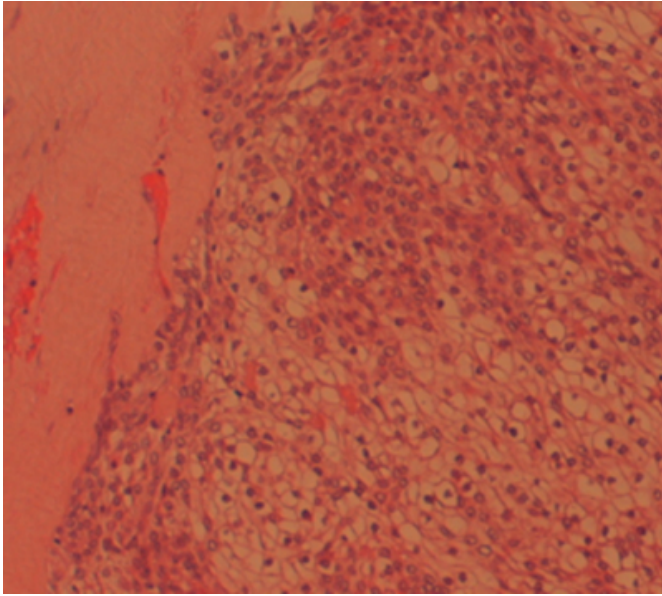


Figure 2

Figure 2: CK7 staining

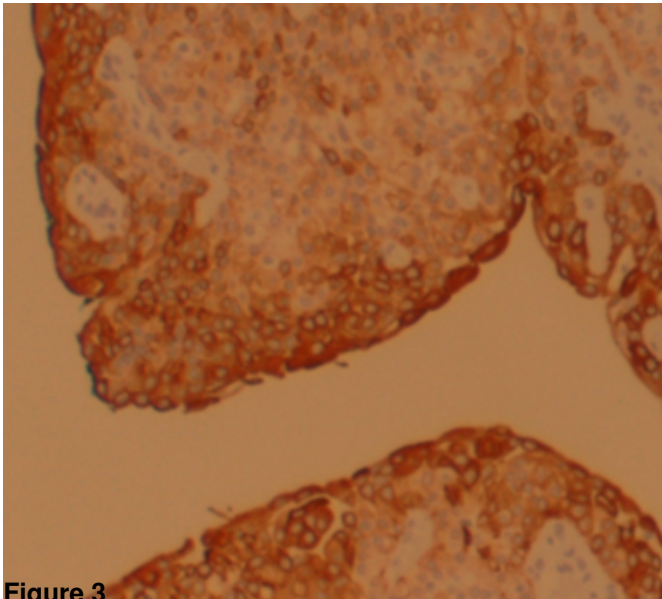
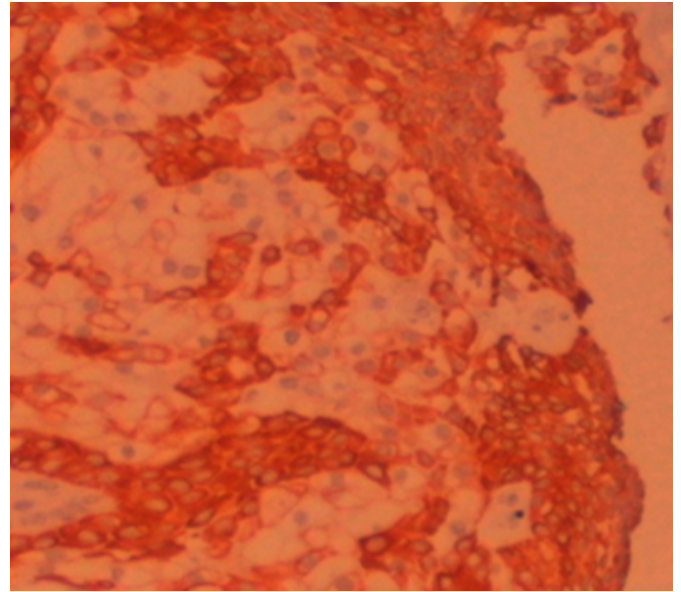


Figure 3

Figure 3:CK14 staining



References

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