Granular Cell Tumor (Abrikossoff' tumor) Mimicking a Breast Cancer: Case Report and Review of the literature

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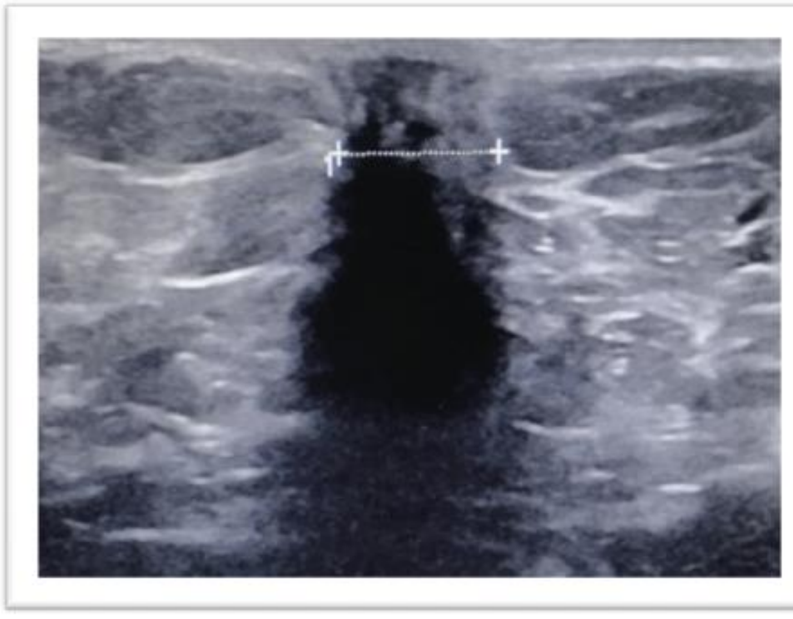
Case presentation

A 54-year old Lebanese woman, presented with a palpable mass of the right breast associated with retraction of the skin at the level of the tumour. She is known to have no medical or surgical history except for 2 vaginal deliveries. There is no familial or personal history of gynaecological cancer. At that time, the patient was experiencing a menopausal syndrome.On the physical examination, the mass was firm, painless, of 1.5 cm approximately, located at the upper outer quadrant of the right breast with a retraction of the skin. No axillaries lymph nodes were palpated.

A mammogram and an ultrasound were done showing an illdefined, speculated mass of 1.5 cm, hypoechoic with posterior shadowing, highly suspicious for malignancy the Breast Imaging Reporting and Data System, category 4 (Figure1). On macroscopic examination, the mass appeared white with irregular borders, measuring 1.5 cm (Figure 2).
Microscopic exam showed a proliferation of cells arranged in nests and sheets. These cells are uniform, large and polygonal with picnotic nuclei. There is an absence of mitoses, nuclear multiplicity and atypia. Special stains confirmed the presence of granules that are Periodic acid- Schiff positive and diastase resistant
Based on these features, the diagnosis of benign Granular Cell Tumor (GCT) had been made. Later on, an immunohistochemical study revealed a strong expression of S-100 protein hence affirming the diagnosis of GCT. The patient underwent a wide excision of the tumor.



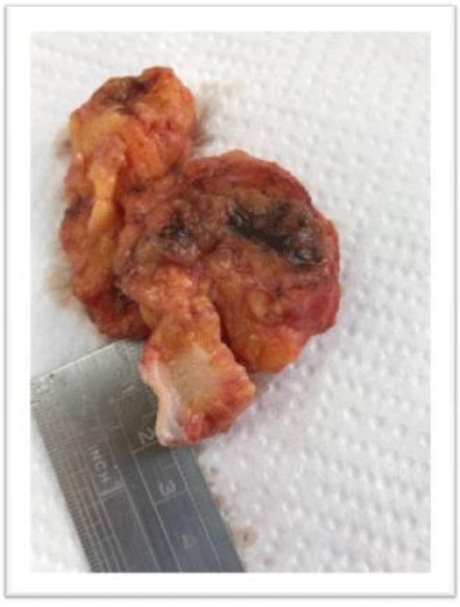


Figure 1: Ultrasound showed a 15mm hypoechoic, heterogeneous, spiculated and poorly limited mass, that mimics carcinoma.

Figure 2: A 1.5 cm whitish mass with irregular borders.

Discussion

Abrikossoff's tumor or Granular cell tumor is a very rare benign tumor .Less than 1% is found to be malignant . It originates from Schwann cells due to the positive staining for S-100 protein . It affects the females between the age of 20 and 50 year- old. Nevertheless, some cases targeting men have been reported in the literature . The most common appearance was in the tongue, but it can also occur in the breast with 5% of all the cases. GCT of the breast is usually located in the upper inner quadrant. Some described a thickening or a retraction at the level of the lesion. On imaging examination, this tumor is very suggestive of a breast carcinoma.

Mammography usually reveals a small, dense, spiculated lesion with no calcifications. On ultrasound, the mass appears solid, poorly defined, with marked posterior shadowing as viewed in our case . The definitive diagnosis is made by excisional biopsy and confirmation with immunohistochemical study (1-3). .
In case of incomplete excision, this tumor can recur. Therefore, the treatment of choice in case of GCT is a wide excision with free margins. In case of malignancy, the axillaries lymph nodes can be invaded (3-4).

Références

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