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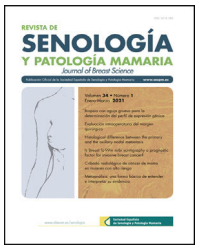

CASE REPORT

Granular cell tumor: An Italian case-report

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KEYWORDS
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Abstract We report a case of a 58-year-old woman with granular cell tumor (GCT) of the breast. The clinical and instrumental aspects were suggestive for breast cancer.

The correct diagnosis was obtained with a paraffin histological examination of the lesion excised by the biopsy.

The clinical peculiarities and the correlated therapeutic implications of this rare neoplasm are discussed in this manuscript.

Although CGT is a rare condition, it has considerable importance among benign breast lesions that can be erroneously interpreted as carcinoma.

PALABRAS CLAVE
Tumor de células granulares;
Cáncer de mama;
Manejo del tumor de células granulares en la mama

Tumor de células granulares: caso clínico en Italia

Resumen Reportamos el caso de una mujer de 58 años de edad con tumor de células granulares (TCG) en la mama. Los aspectos clínico e instrumental eran indicativos de cáncer de mama.

El diagnóstico correcto se obtuvo mediante examen histológico en parafina de la lesión extirpada mediante biopsia.

En el presente documento se debaten las peculiaridades clínicas y las implicaciones terapéuticas consiguientes de esta neoplasia infrecuente.

Aunque el TCG es una situación rara, tiene una importancia considerable entre las lesiones benignas de mama que pueden interpretarse erróneamente como carcinoma.

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Introduction

Granular cell tumor (GCT) is a rare soft tissue neoplasm, described for the first time in 1926 by Abrikossoff with the name of ''granular cell mioblastoma''.[1]

Although the histogenesis is still object of debate, recent histochemical studies and ultrastructural findings support the origin of this neoplasm from the peripheral nervous tissue, most likely from Schwann's cells.[2]

This tumor is mainly localized in several anatomical positions, comprising the tongue and the skin.[3]

A total percentage of 6–8% of all cases arises from the breast, mostly in women between 30 and 50 years old.

Although the granular cell tumor of the breast is a rare entity, surgeons and pathologists should be aware of its existence to avoid inappropriate radical surgery not justified by the benign behavior of the neoplasm.

We present a case of a patient with GCT.

Clinical case

A 58 years-old woman presented to our department after a mammographic screening.

Physical examination showed a breast mass in the right breast with all features of malignancy on palpation.

The mammography revealed a suspicious 7 mm × 6 mm nodular formation with irregular margins, localized in the upper outer quadrant of the right breast.

The lesion was typified with vacuum assisted biopsy (VAB) and it resulted to be a granular cell tumor (GCT) of the breast.

The suspect neoplasia was centered with a second metallic wire allowing the right surgical removal, confirmed at the radiological control.

The definitive histologic exam confirmed the first stereotactic vacuum assisted biopsy's diagnosis of GTC tumor, strongly and diffusely positive to S100 and PGM1, resulting negative for broad-spectrum cytokeratin.

No adverse events were reported during the performance of these medical procedures.

Finally, she has been followed by a multidisciplinary team at regular intervals, including a clinical follow-up every 3/6 months for the first two years and every year until five years after surgery.

At the most recent follow-up, the patient remains without evidence of disease on clinical examination and medical imaging (Figs. 1 and 2).

Discussion

The GCT histopathology has been argued for a long time, although the first wrong Abrikossoff's origin supposition from the striated muscle tissue.[4]

Several authors attributed the GCT a neural origin from Shwann's cell, based on the structural and histochemical studies based on the positivity to S100 protein and negativity to cytokeratin, an epithelial cell marker.[5]

The most frequent localization of this tumor in the breast is in the upper outer quadrant, as confirmed in our case.

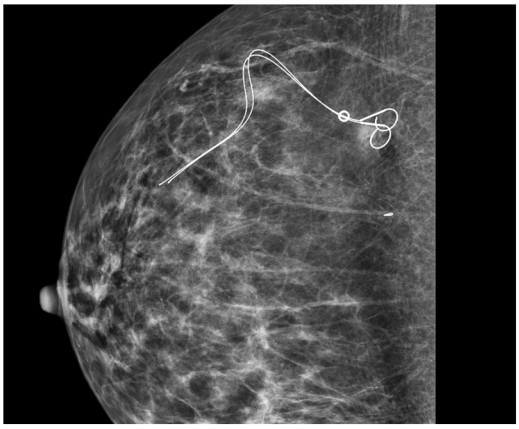

Figure 1 Mammographic image showing the metallic marker at the site of breast lesion.

Figure 2 The histologic sample of the removed lesion with the metallic marker.

More than half of patients with GCT present with a hard and painless nodule, indistinct areas and skin retraction signs.

A third of cases resemble a fibroadenoma, while in less than 10% of cases there isn't any sign of clinical expression.

This kind of lesion can simulate a fibroadenoma during physical examination.

In addition, radiologic images can be not indicative of a CGT and they have several features that can mimic a radial scar.

The only possibility to find the CGT is during screening or in the surgical piece.

Even in our situation, as in the 60% of cases, mammography shows a nodular opacity with irregular margins, suggesting a malignant neoplasm.

Although the GCT of the breast may be considered a rare lesion, it is of considerable importance in the differential diagnosis with breast cancer.

In our case-report it appears to be the first case reported recently.

The clinical case in question, despite the diagnosis already in possession at the time of presentation, allows us to state that the neoplasm manifests itself with clinical radiological features of malignancy like other injuries such as ''radial scar''.

The GCT is a benign neoplasm almost always treatable by surgical excision. However, since local recurrences have been documented in patients undergoing inadequate excision, a clinical-instrumental follow-up is recommended.

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Confidentiality of data

The authors declare that they have followed the protocols of their center on the publication of patient data.

Conflicts of interest

There are no conflicts of interests among authors.

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