Sporadic retromammary schwannoma

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DESCRIPTION

A male patient in his 70s with no relevant medical history presented to his primary care physician complaining of a painless lump on his left breast. On physical examination, a palpable and non-tender breast mass was detected with no skin alterations or nipple retraction.

Ultrasound (US) showed an oval, circumscribed, hypoechoic, non-calcified nodule with posterior enhancement, but no posterior shadowing, measuring 21 mm in the upper-inner quadrant of the left breast immediately adjacent to the pectoralis major (figure 1).

Breast MRI was performed for further characterisation. An oval-shaped mass with circumscribed margins was identified in a retromammary location with a partially intramuscular component. It was regularly encapsulated and had an isointense signal relative to skeletal muscle on T1-weighted images and increased, slightly heterogeneous signal intensity on T2-weighted images. It demonstrated intense enhancement after intravenous gadolinium-based contrast material administration (figure 2). Two features present in this case are the peripheral rim of fat (split fat sign) and the central low T2-signal (target sign), which probably represents fibrous tissue. These MRI features are typical of peripheral nerve sheath tumours.

However, other typical signs of peripheral nerve sheath tumours were not recognised, such as the continuity of the lesion with a nearby nerve seen entering and exiting the mass and a fascicular appearance, known as the fascicular sign.

A core-needle biopsy was performed under US guidance. Histological evaluation of the tissue section was consistent with a schwannoma. Surgical resection was recommended to the patient, and he underwent a successful excision. The procedure was uneventful. A well-circumscribed, xanthochromic and rubbery mass measuring 24 mm was removed and sent for anatomopathological analysis. Microscopic evaluation confirmed the diagnosis of a benign schwannoma, with S-100 positivity.

Postsurgical clinical assessment was unremarkable, and the patient was discharged.

Schwannomas are the most common nerve sheath tumours. They are usually benign, well-encapsulated, slow-growing tumours composed of Schwann cells. Although rare, malignant transformation may occur. The tumour can originate anywhere in the body. While the vast majority of cases are sporadic and solitary, multiple lesions should prompt investigation of related genetic diseases, such as neurofibromatosis type 2. It may present as an asymptomatic...

Figure 1  US image showing an oval, circumscribed, hypoechoic, non-calcified nodule with posterior enhancement and without posterior shadowing, measuring 21 mm in the upper-inner quadrant of the left breast adjacent to the pectoralis major. US, ultrasound.

Figure 2  Breast MRI. (A) Axial T1-weighted image shows a well-defined 22 mm isointense lesion (relative to skeletal muscle) with a peripheral rim of fat (split fat sign). (B) Axial T2-weighted image shows an heterogeneously hyperintense encapsulated lesion with low T2 signal centrally (target sign). (C) Fat saturated T1 postcontrast subtraction image shows hyperenhancement after contrast.

Patient’s perspective

I was very worried when I first noticed a lump on my left breast. Fortunately, the medical team was very efficient on diagnosing and removing the lump. I am very satisfied with the care that I received.

Learning points

► Although extremely rare, schwannomas should be considered in the diagnostic assessment of a soft tissue mass in the breast.
► They can be recognised by their common MRI characteristics, helping to narrow the differential diagnosis of breast masses.
mass or be associated with pain and neurological symptoms. Tumour biopsy should be considered and after histological confirmation surgical resection is recommended. Recurrence is uncommon.3

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

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