Male's breast Mondor's disease
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Section: Breast imaging
Area of Interest: Breast
Imaging Technique: Ultrasound
Imaging Technique: Ultrasound-Colour Doppler
Case Type: Clinical Cases
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Patient: 65 years, male

Clinical History:
A 65-year-old man was referred to the breast unit for assessment of a lump in the left breast after one month of evolution. On physical examination, a painful cord-like induration was observed in the upper external quadrant of the left breast. Former smoker. No other relevant medical or surgical history.

Imaging Findings:
Mammography showed breasts with fat content, highlighting in the left breast a thick and tortuous structure with a vascular appearance (Fig. 1).

On ultrasound, it was a hypoechoic, tubular structure (Fig. 2a), impossible to compress with the linear probe with an almost absent signal on colour Doppler (Fig. 2b), localized in the subcutaneous fat.

These findings correspond to a thrombosed superficial venous vessel or Mondor's disease.

Discussion:
Background

Mondor's disease (MD) is a rare condition characterized by thrombophlebitis of the superficial veins of the anterior thoracoabdominal wall [1].

The real incidence of MD is unknown [2], probably due to its self-limited course. Previous studies estimate an incidence ratio between 0.07-0.96% in patients who attend breast consultations[1]. MD is much more common in women, with a female to male ratio between 9-14:1 [1], without racial or ethnic predilection [2]. The thoracoepigastric vein is the most frequently implicated [1], usually unilaterally, although some cases of bilateral affectation have been reported [1].

Similar abnormalities are described in other locations and are considered as variants of MD[3], such as penile MD [4], or axillary web syndrome [5]. In men, penile MD is an entity well-known and described, however, the involvement of the breast in a male is very rare, and there are few cases described[6].

MD is usually idiopathic (primary MD) [3], but is important to bear in mind that there may be an underlying cause[3], such as a hypercoagulative state, vasculitis, or neoplasms (secondary MD), which should be reasonably ruled out.
Clinical Perspective

MD manifests as a palpable, painful cord-like induration on the body surface, which may associate subtle inflammatory signs [3]. Diagnosis is mainly based on the clinical history and physical examination. It is important to assess the presence of risk factors that suggest secondary MD. Doppler ultrasound is the technique of choice to confirm the diagnosis [1].

Imaging Perspective

The favourite modality of imaging is ultrasound with a linear transducer[1]. It depicts a subcutaneous non-compressive tubular structure, with echogenic content and absence of flow signal on Doppler studies. It corresponds to a superficial venous thrombosis, which may or not associate subtle inflammatory changes in the surrounding subcutaneous fat tissue.

Mammography is usually performed when alternative diagnostic possibilities are considered. It reveals a superficial radiodense linear structure. Sometimes, due to the projection, it can acquire a nodular morphology, it is important to rule out primary breast tumours with ultrasound in these cases.

Outcome

MD is usually a self-limited disease that resolves within 4 to 8 weeks without the need for treatment or follow-up[3].

Take-Home Message/Teaching Points

MD is self-limited thrombophlebitis of the superficial veins of the anterior thoracoabdominal wall, much more frequent in women but, since it can also occur in men, should be considered in the differential diagnosis of male’s breast and chest lesions.

Differential Diagnosis List: Mondor’s disease, Primary breast cancer, Fibroadenoma, Cavernous haemangioma

Final Diagnosis: Mondor’s disease

References:


Isik A, Karavas E, Peker K, Soyturk M, Yilmaz I. Male Mondor’s Disease is a Rare Entity. Breast J. 2016;22(6):700-1. (PMID: 27550206)
Description: Left breast mammography depicts a breast with fat content, highlighting a thick and tortuous structure with a vascular appearance. Origin: Área Clínica de Imagen Médica, Hospital Universitario y Politécnico La Fe, Valencia, Spain, 2021.
Figure 2

Description: Ultrasound shows a hypoechoic, tubular structure localized in the subcutaneous fat, that is impossible to compress with the linear probe (Fig. 2a) with an almost absent signal on color Doppler (Fig. 2b) Origin: Área Clínica de Imagen Médica, Hospital Universitario y Politécnico La Fe, Valencia, Spain, 2021
Ultrasound shows a hypoechoic, tubular structure localized in the subcutaneous fat, that is impossible to compress with the linear probe (Fig. 2a) with an almost absent signal on color Doppler (Fig. 2b). **Origin:** Área Clínica de Imagen Médica, Hospital Universitario y Politécnico La Fe, Valencia, Spain, 2021