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Clinical Image

Superficial thoracoepigastric vein thrombophlebitis or Mondor's disease

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ABSTRACT

Mondor's disease is a rare superficial thrombophlebitis, most often affecting the thoracoepigastric vein, with an estimated incidence of 0.5–0.9%. Although benign and self-limiting, it may mimic serious conditions such as inflammatory breast cancer or breast abscess, making clinical awareness essential. Mondor's disease, though often idiopathic, may be associated with trauma, intense physical activity, iatrogenic interventions, or systemic conditions. This report aims to raise clinical suspicion in daily practice, facilitating timely diagnosis and appropriate management. We report the case of a 35-year-old male, active in competitive football, who presented with a 10-day history of a cord-like, painful induration along the right hemithorax. Examination confirmed a tender cord on the lateral chest wall, while laboratory tests and chest radiography were unremarkable. Ultrasound revealed thrombosis of a descending superficial thoracic vein. The patient was managed with nonsteroidal anti-inflammatory drugs, with complete spontaneous resolution within four weeks and no need for anticoagulation.

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Tromboflebitis de la vena toracoepigástrica superficial o enfermedad de Mondor

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RESUMEN

La enfermedad de Mondor es una tromboflebitis superficial poco frecuente que afecta con mayor frecuencia la vena toracoepigástrica, con una incidencia estimada del 0,5 al 0,9 %. Aunque benigna y autolimitada, puede simular afecciones graves como el cáncer de mama inflamatorio o el absceso mamario, por lo que es fundamental el conocimiento clínico. La enfermedad de Mondor, aunque a menudo idiopática, puede asociarse con traumatismos, actividad física intensa, intervenciones iatrogénicas o afecciones sistémicas. Este informe busca aumentar la sospecha clínica en la práctica diaria, facilitando un diagnóstico oportuno y un tratamiento adecuado. Presentamos el caso de un hombre de 35 años, jugador de fútbol de competición, que presentó una induración dolorosa y de aspecto cordal en el hemitórax derecho durante 10 días. La exploración confirmó la presencia de un cordón doloroso en la pared torácica lateral, mientras que las pruebas de laboratorio y la radiografía de tórax no mostraron hallazgos destacables. La ecografía reveló trombosis de la vena torácica superficial descendente. El paciente fue tratado con antiinflamatorios no esteroides, con resolución espontánea completa en cuatro semanas y sin necesidad de anticoagulación.

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1. INTRODUCTION

Mondor's disease, first described in 1939 by Henri Mondor, is a rare clinical entity characterized by superficial thrombophlebitis, most commonly affecting the thoracoepigastric vein. Its incidence has been estimated between 0.5% and 0.9%, with a higher prevalence in middle-aged women [1]. Although the etiology is often idiopathic, several predisposing factors have been identified, including local trauma, excessive physical exertion, thoracic surgery, radiotherapy, or hormonal therapy. Less frequently, Mondor's disease may be associated with systemic conditions such as malignancy, hypercoagulable states, or inflammatory disorders, highlighting the importance of ruling out occult neoplasia in cases without clear precipitating factors [2].

Clinically, patients typically present with a painful, palpable, cord-like induration on the chest wall, which follows skin retraction due to the superficial location of the affected vein. The diagnosis is primarily clinical, but ultrasonography can support the suspicion, revealing a dilated, non-compressible superficial vein containing an intraluminal thrombus without Doppler flow [3].

The aim of this report is to raise clinical awareness in daily practice, thereby facilitating timely diagnosis and appropriate management of Mondor's disease.

2. CASE REPORT

A 35-year-old male presented with a 10-day history of a tight, cord-like sensation along the right hemithorax. The patient, an active football player, had no history of fever or other infectious symptoms, though local trauma or overexertion could not be excluded as potential contributing factors.

On physical examination, a tender, indurated cord was palpable along the lateral aspect of the right hemithorax, extending to the level of the 6th–7th ribs (Figure 1A). No evidence of collateral circulation was observed. Cardiopulmonary auscultation was unremarkable, and peripheral pulses in both upper limbs were symmetric and preserved.

Laboratory evaluation, including complete blood count, biochemical profile, and coagulation studies, as well as chest radiography, revealed no significant abnormalities. Ultrasound imaging subsequently demonstrated findings consistent with thrombosis of a descending superficial thoracic vein (Figure 1B).

The thrombosis resolved spontaneously over four weeks with nonsteroidal anti-inflammatory drug (NSAID) therapy; so, anticoagulation therapy was not initiated. The patient was referred to Vascular Surgery and Hematology for further evaluation, including assessment for potential underlying thrombophilia.

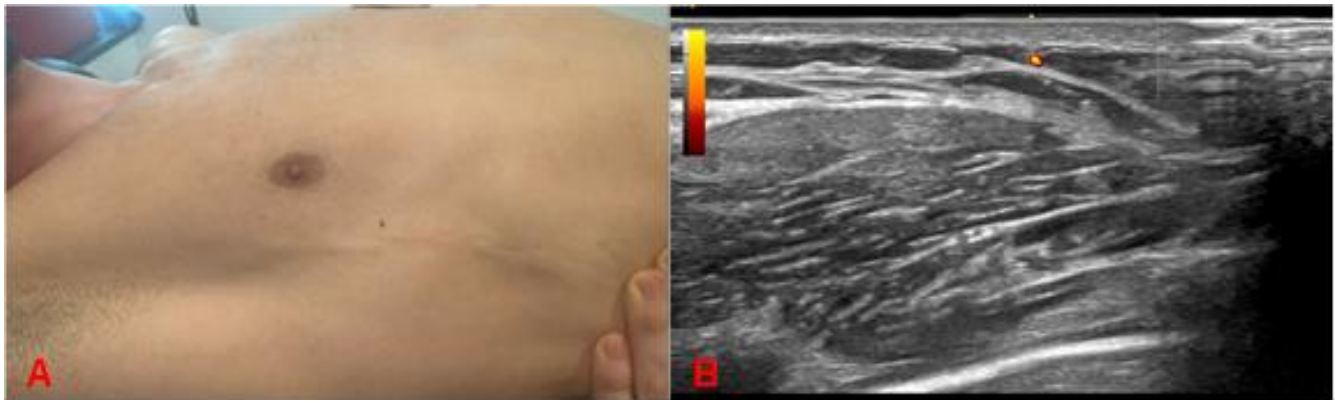

Figure 1: *A: Clinical photo. A palpable, tortuous cord associated with cutaneous retraction is evident along the lateral thoracic wall. B: Ultrasonographic image. A superficial, tortuous, hypoechoic cord without detectable Doppler flow is demonstrated.*

3. DISCUSSION

Mondor's disease was first defined in 1939 by French surgeon Henri Mondor as thrombophlebitis of the superficial thoracoepigastric vein. It is a rare condition, with an incidence of approximately 0.5% to 0.9%, and it is more commonly observed in middle-aged women [1].

Its etiology remains incompletely understood, with approximately 45% of cases considered idiopathic. Biopsies, once performed but now not recommended, showed thrombophlebitis evolving into connective tissue proliferation and hard cord formation. This process explains most cases, with only a minority due to lymphangitis or other causes [2].

Nonetheless, several precipitating factors have been identified, including local trauma, excessive physical exertion of the upper limbs, and iatrogenic causes such as thoracic surgery, radiotherapy, or hormonal therapy. Additional risk factors encompass malignancy, systemic inflammatory conditions, hypercoagulable states, and external agents that generate sustained compression of the venous structures, such as constrictive bandages or tight-fitting garments [3].

In cases associated with breast carcinoma, the underlying mechanism has been attributed to extrinsic compression of the superficial thoracic veins by the primary tumor or by metastatic involvement of regional lymph nodes, both of which promote venous stasis and thrombosis. Therefore, in the absence of an evident recent precipitating factor, it is essential to consider and exclude the possibility of an occult malignancy [1, 3, 4].

On physical examination, a palpable and painful cord adherent to the skin is typically observed in the chest wall. Other anatomical sites reported in the literature include the axillary region and the penis. Patients may additionally present with localized erythema, tenderness, or, less frequently, fever. Given the superficial location of the lesion, the cord characteristically follows the movement of the skin during retraction [1, 4, 5].

The diagnosis is predominantly clinical, although ultrasonography may be employed to support diagnostic suspicion. Sonographic findings typically reveal a superficial, elongated, anechoic or hypoechoic tubular structure, often dilated and containing an intraluminal thrombus, with absence of Doppler flow. Additional investigations are generally unnecessary, except in cases where an underlying systemic etiology is suspected [1, 3, 4].

Mondor's disease can be mistaken primarily for inflammatory breast cancer, since both conditions present with pain and cutaneous changes; however, carcinoma usually shows diffuse induration, orange skin and rapid progression. It may also resemble a breast abscess, which is characterized by severe pain, fluctuation, and more prominent inflammatory signs. Another entity to consider is a Spigelian hernia, especially when superficial thrombophlebitis appears in the lateral abdominal wall, as well as traumatic funicular phlebitis, which is clinically similar but usually preceded by local trauma or surgery. Cellulitis, erythema nodosum, and cutaneous metastatic lesions should also be included in the differential diagnosis, as they may mimic the characteristic painful cord, along with lymphatic malformations such as lymphangiectasia or lymphangioma, which can produce palpable linear lesions without the typical thrombotic component [6].

We have not found explicit recommendations regarding Mondor's disease, but following the recommendations for superficial venous thrombosis, clinical guidelines for superficial venous thrombosis like Brazilians say that routine thrombophilia screening in superficial venous thrombosis is not indicated. Only recommended in selected cases: SVT not explained without varicose veins,

progression despite anticoagulation, recurrences, atypical locations, early age or family history [6].

The clinical course of the disease is generally self-limiting, with spontaneous resolution occurring within 2 to 6 weeks. However, a standardized management strategy has not yet been established due to the limited availability of robust evidence[4]. In symptomatic cases, particularly when pain is present, treatment with non-steroidal anti-inflammatory drugs (NSAIDs) or analgesics may be considered. Although specific recommendations for Mondor's disease are lacking, some authors[2], regarding the condition as a form of superficial thrombophlebitis, advocate adherence to the guidelines of the American College of Chest Physicians, which suggest the use of prophylactic or intermediate doses of low-molecular-weight heparin for a minimum of four weeks (grade 2B) [7].

4. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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