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Mondor's Disease Superficial Thrombophlebitis of the Chest Wall: Case Report of a Rare Condition

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Abstract **Case Report**

Introduction: Superficial thrombophlebitis of the chest wall is referred to as Mondor's disease (MD). Other atypical locations such as abdominal, inguinal and penile regions have been described in the literature [1]. In the thoracic region, the veins mainly affected are the thoracoepigastric vein and the superior epigastric vein. Its incidence is low and it generally occurs in the middle-aged people [2]. It is a benign, self-limited lesion whose treatment is usually conservative. The resolution of the clinical picture in most cases occurs within 4 to 8 weeks [2, 5]. ***Clinical Case:*** A 41- year-old female patient, no personal pathologic history. She went to the doctor for medical consultation due to the presence of a lump in the right submammary region after thoracic trauma with a car seat belt in a traffic accident of 12 days of evolution. She reported pain and progressive increase of the lump size. Physical examination revealed the presence of a venous lump in the right chest and abdominal wall, 1 cm in diameter, solid, painful on palpation, extending from the right submammary region to the right side with a length of 13 cm. Based on the clinical and ultrasound study, a diagnosis of Mondor's disease was made. An initial conservative management was decided with the use of anti- inflammatory drugs, analgesics and clinical and ultrasound monitoring at 4 weeks. ***Conclusion:*** Mondor's disease is a clinical disease of infrequent occurrence; its diagnosis is based mainly on a detailed clinical history and can be complemented with color Doppler ultrasound. Being a self-limited disease, the treatment with the highest success rates is conservative, reserving surgery in cases of difficult pain treatment.

Keywords: Mondor's disease (MD), superficial thrombophlebitis, Chest wall, Conservative management.

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INTRODUCTION

Superficial thrombophlebitis of the chest wall is referred to as Mondor's disease (MD). Other atypical locations such as abdominal, inguinal and penile regions have been described in the literature [1]. In the thoracic region, the veins mainly affected are the thoracoepigastric vein and the superior epigastric vein. Its incidence is low and it generally occurs in the middle-aged people [2]. As for its etiology, 60% is idiopathic and its development is also related to trauma, hypercoagulable states and breast cancer [3, 4]. It is a benign, self-limited lesion whose treatment is usually conservative with the use of analgesics and anti-inflammatory drugs. The resolution of the clinical picture in most cases occurs within 4 to 8 weeks [2, 5].

CLINICAL CASE

41-year-old female patient, no personal pathological history, surgical history: left knee arthroscopy, family history: mother with arterial hypertension, father with a history of acute myocardial infarction, paternal grandmother died of uterine cancer and reported allergy to ciprofloxacin.

She went to the doctor for medical consultation due to the presence of a lump in the right submammary region after thoracic trauma with a car seat belt in a traffic accident of 12 days of evolution. She reported pain and progressive increase of the lump size.

Physical examination revealed the presence of a venous lump in the right chest and abdominal wall, 1 cm in diameter, solid, painful on palpation, extending from the right submammary region to the right side with a length of 13 cm. No adenopathies were detected in the rest of the examination.

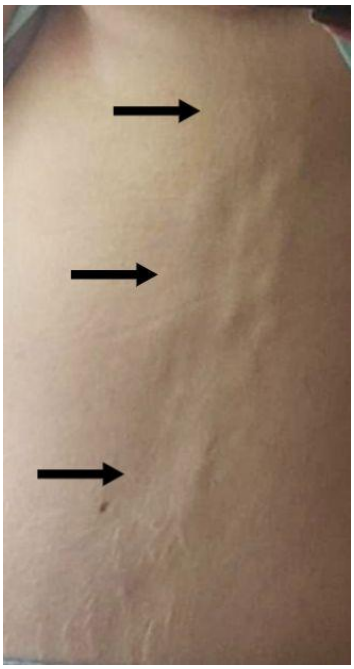

Figure 1: Presence of venous lump in the right thoracic and abdominal wall extending from the submammary region to the right side

Venous Doppler ultrasound is performed, which reports the presence of hyperechogenic images in portions of the veins of the right chest wall, non-compressible and with absence of color flow. Findings compatible with subacute superficial venous thrombosis.

Figure 2: A. Superficial venous thrombosis, absence of flow is observed in the venous path. B. Non-compressible vein with hyperechoic images in its interior suggestive of subacute superficial thrombosis

Based on the clinical and ultrasound findings, a diagnosis of Mondor's disease was made. An initial conservative management was decided with the use of anti-inflammatory drugs, analgesics and clinical and ultrasound monitoring at 4 weeks. Only in case of persistence of thrombus or its increase, the possibility of starting anticoagulation treatment was considered.

Additionally, the hematology service was sent to perform a thrombophilia study 12 weeks after the event.

Four weeks after the event, the patient came for a check-up and reported a total decrease in pain and involution in the size of the venous lump, so she did not require the use of anticoagulation treatment or other diagnostic imaging tests.

In the hematological investigation in the studies, she was homozygous mutant T/T for the SNP C677T of the MTHFR gene, which does not generate high thromboembolic risk and which is not expressed since the levels of homocysteine in plasma are normal. Normal coagulation proteins, negative tumor markers.

She presented positive ANAS (antinuclear antibodies), so a new determination was performed and all the immunological tests were negative. In this context, high-risk thrombophilia was ruled out. It was determined that the etiology in our patient was trauma in the thoracic region.

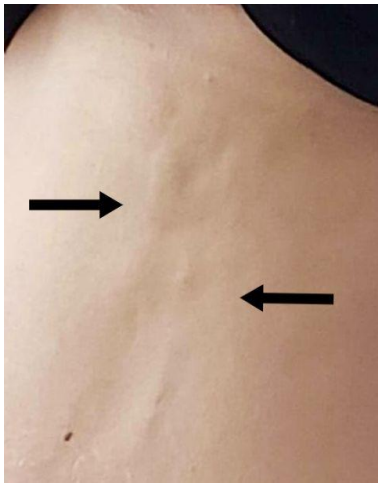

Figure 3: Clinical follow-up at 4 weeks, decrease in size of the venous lump of the right abdominal and thoracic wall is observed

DISCUSSION

Mondor's disease was described for the first time by Henry Mondor in 1939 as "string phlebitis" [5], it is an extremely rare disease with an incidence of 0.07 to 0.96% [6], with an occurrence predisposition for the female sex of a 3:1 ratio in relation to the male sex. The average age is 30 to 60 years [2].

It is classified according to the location of the lesion, as thrombophlebitis of the lateral chest and abdominal wall which is considered as the original site, the most frequent lesion in the thoracoepigastric vein [7], thrombosis of the dorsal vein of the penis, related to excessive sexual activity [5] and axillary web syndrome [3].

The great majority of cases are of idiopathic origin 60% [4], the rest of cases are related to vasculitis, hypercoagulable states, trauma, excessive physical exercise, breast surgery and even breast cancer [2, 3]. In our reported case, the cause was the trauma produced by the seat belt in a traffic accident, and any possibility of oncologic pathology and thrombophilias was ruled out.

Its pathophysiology is not clear, in histopathological studies it was possible to determine the presence of thrombophlebitis of the superficial veins and in some cases lymphangitis [3]. The obstruction of the vessel lumen with fibrin, inflammatory cells and connective tissue produces an induration in the form of a lump, which then involute and recanalize in several weeks the vessel lumen [3]. Although it may appear repeatedly, it is not considered a chronic disease [5].

Its clinical symptoms are mainly manifested as an indurated palpable lump of acute onset, generally edematous, with increased temperature and pain, which is the patient's main complaint [2, 6].

Diagnosis should be based on clinical history and physical examination. Unnecessary diagnostic tests should be avoided. When the clinical picture is not specific, ultrasound can be used, which will reveal images with tubular structure, non-compressible with hypoechoic content. In the absence of flow signal, color Doppler will be used [2, 3, 8]. Given its relation with breast cancer, mammography should be performed exclusively when there is a diagnostic suspicion of neoplasia in both men and women [2]. The use of tomography or magnetic resonance imaging is not recommended.

Since it is a self-limited disease, with an approximate resolution time of 4 to 8 weeks, no specific treatment is necessary. The first line of treatment should be conservative with the use of analgesics, nonsteroidal anti-inflammatory drug and warm compresses. In our experience with good results. The use of anticoagulation treatment is controversial, while local injection of Triamcinolone has been shown to shorten the time to disappearance of the indurated venous lump [2].

In cases of difficult pain treatment, surgery may be considered, specifically excision of the affected vein [2]. Biopsies are not recommended given its self-limited evolution [5].

CONCLUSION

Mondor's disease is a clinical disease of infrequent occurrence; its diagnosis is based mainly on a detailed clinical history and can be complemented with color Doppler ultrasound. In our case, the etiology was previous trauma. If the cause is not found, diseases that cause a hypercoagulable state, such as oncologic processes, should be investigated. Being a self-limited disease, the treatment with the highest success rates is conservative, reserving surgery in cases of difficult pain treatment.

CONFLICT OF INTEREST

We, the authors, declare that we have no personal, financial, intellectual, economic, and corporate conflicts of interest.

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