

# An Unusual Case of Thrombophlebitis of the Thoracoepigastric Vein: a Variant of Mondor's Disease: Case Report

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## Abstract

“String phlebitis” of anterior chest wall is a rare clinical entity with a poorly understood etiology. Failure to recognize this mostly benign condition can result in unnecessary investigations. At the same time, it can be a manifestation of a basic serious condition, especially carcinoma of the breast at its early stage, which is often underdiagnosed due to lack of awareness.

**Keywords:** Mondor's disease, thrombophlebitis, string phlebitis, deep venous thromb, case report

## 1. Introduction

Superficial thrombophlebitis of the epigastric vein is an unusual disease. This condition presents with rapid development of a subcutaneous red cord-like lesion (thrombophlebitis of the superficial veins) that causes pain at an early stage and subsequently becomes a painless fibrous band (Suganthan N, Ratnasamy V., 2018). Those lesions were mainly unilateral.

It was first described by Faage in 1869 as a kind of scleroderma and eponymized as Mondor's disease by Henri Mondor, a French Professor of Surgery in 1939 (Mondor H., 1939; Kibil W, Hodorowicz-Zaniewska D & Kulig J., 2015). In 1958, Helm and Hodge reported a case of thrombosis of dorsal superficial vein of penis as penile Mondor's disease (Helm JDJ & Hodge I. G., 1958).

The history will, however, involve aspects consistent with Virchow's triad of stasis, hypercoagulability and vessel wall damage. Thrombophilic conditions, breast cancer and physical trauma have been identified as the common etiological factors (Amano M & Shimizu T., 2018). Cases of Mondor disease have been reported after cosmetic mammoplasty, mastectomy and breast-conserving surgery for breast cancer and after core needle biopsy (Goldman A & Wollina U., 2018) or Jelly fish sting.

Migratory superficial vein thrombosis, which develops, resolves, and recurs in normal veins in the arms, legs, and trunk on several occasions, is a possible precursor to pancreatic cancer and other adenocarcinomas (Trousseau syndrome).

In cases where the situation is secondary to a hypercoagulable state, the prognosis is directly linked to the inciting condition. Superficial thrombophlebitis may coexist with DVT, which should be considered when evaluating the patient. Fortunately, they cause serious complications very rarely and usually do not develop into embolism.

## 2. Case Report

Here we report a case of a 32-year-old woman who presented with chest pain. There was history of blunt trauma (punch) one week ago. Clinical examination showed a tender area on right part of her lower chest and abdomen

with a firm, cord-like swelling just under the skin (Figure 1). There was no regional lymphadenopathy. An ultrasound showed occluded subcutaneous epigastric vessel (Figure 2), no signs of malignancy. Doppler excluded deep vein thrombosis. D-dimer was negative at 0.15 mg/l FEU. Bloods were normal, no signs of systemic coagulopathy. Diagnosis of Mondor's disease was made based on the history and clinical examination. The patient was treated with enoxaparinum natrium 6000IU (60MG)/0,6ML subcutaneously once daily (42 days). After 1.5 month on review her symptoms were completely resolved. An control color Doppler ultrasonography showed a free-flowing vein. The follow up without signs of recurrence was 2 years.

### 3. Discussion

The diagnosis is often made clinically. Ultrasonography is useful to check correctly it.

There is a lack of consensus on the treatment, with recommendations ranging from observation to NSAIDs to treatment with low molecular weight heparin (LMWH). Warm compresses, abstinence from irritating clothing or activities and NSAIDs may reduce the pain (Suganthan N & Ratnasamy V., 2018; Di Nisio M, Wichers IM & Middeldorp S., 2013; Roscher A & Weinstein E., 1980; Brunicardi F, Andersen D, Billiar T & et al., 2014). Prophylactic vein ligation alone was found less effective than conservative therapy (Blättler W, Schwarzenbach B & Largiadèr J, 2008).

### 4. Conclusions

Mondor's disease is a very rare clinical entity with a poorly understood etiology. There is a risk of progression to DVT, deep venous thromb. It is easy to diagnose by performing a clinical examination and ultrasound. It should be considered for treatment with anticoagulation. In patients with palpable findings in the breast examination, mammographic examination is essential to rule out an underlying malignancy.

### Declarations

#### Funding

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#### Conflicts of Interest/Competing Interests

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#### Ethics Approval

Not required for literature review and case study. This article does not contain any animal studies performed by no author.

#### Consent to Participate

Not applicable.

#### Consent for Publication

Informed consent was obtained from the patient for publication of this case report and any accompanying images.

#### Availability of Data and Material

All data analysed during this case study are included in this published article.

#### Code Availability

Not applicable.

#### Authors' Contributions

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