In Mondor where the thrombus lies: 
An unusual case of thrombophlebitis of the thoracoepigastric vein

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Case summary
A 56 year old healthy gentleman presented to Ambulatory Care with a three day history of right upper quadrant discomfort and the development of a firm, tender, cord like structure running from below the right axilla to the umbilicus. There was no history of trauma, and no personal or family history of clotting disorders. Bloods were normal. A CT chest/abdomen/pelvis showed no signs of malignancy, and D-dimer was negative at 0.06. An ultrasound doppler of the right upper limb excluded deep vein thrombosis. The patient was diagnosed with superficial thrombophlebitis of the right thoracoepigastric vein or “Mondor’s Disease” based on the clinical findings. He was treated with Enoxaparin 40mg subcutaneously once daily. Three months treatment was advised; the patient elected to complete 55 days of treatment. On review his symptoms were almost completely resolved, and he was discharged to his GP.

Anatomy and Pathophysiology

The thoracoepigastric vein is a communicating vessel between the axillary vein and the superficial epigastric vein. This vein becomes dilated and prominent in conditions where the inferior vena cava is obstructed, such as pregnancy or Budd-Chiari syndrome. Venous thrombosis is caused by turbulent flow of blood through a vein, and damage to the venous valves through trauma, stasis and occlusion. Superficial thrombophlebitis may co-exist with DVT, and this should be considered when assessing the patient.

The causes of Mondor’s disease are detailed in Table 1. Whilst Mondor’s disease is isolation could be described as benign, it may herald a more serious underlying disease process. Malignancy should be considered in any patient presenting to the Medical Admissions Unit or Ambulatory Care with Mondor’s Disease.

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Table 1: Causes of Mondor’s Disease

Investigation
The authors’ consensus is that a diagnosis of “idiopathic” Mondor’s disease should be a diagnosis of exclusion in most patient.

History
Superficial thrombophlebitis of the thoracoepigastric vein was first described in 1869, but was eponymised by Henri Mondor, a French Professor of Surgery, in 1939. One paper hypothesises that the condition may have been known far earlier, and suggests that evidence of Mondor’s disease may be seen on the model in 17th century painter Peter Paul Ruben’s “Sampson and Delilah” and “The Three Graces”

The Mondor’s Disease is used also to describe thrombophlebitis of the superficial dorsal vein of the penis.

References
1. Royal Air Force, 2. Acute Medical Unit, Queen Alexandra Hospital, Portsmouth Hospitals NHS Trust

• Physical examination (guided by history)
• Chest X-ray
• Blood tests (full blood count, serum calcium and liver function tests)
• Urinalysis

Box 1: NICE Guidelines for the investigation of cancer in patients with VTE24

Treatment
There is a lack of consensus on the treatment of Mondor’s disease, with recommendations ranging from observation to NSAIDs to treatment with low molecular weight heparin (LMWH). A recent Cochrane review of the treatment for superficial thrombophlebitis of the lower limb recommended prophylactic dose fondaparinux (2.5mg subcutaneously) for 45 days. NICE guidelines recommend oral or topical NSAIDs, paracetamol and warm compresses for uncomplicated superficial thrombophlebitis. Where there is deemed to be a high risk of progression to DVT (extension of the thrombophlebitis to a site where the superficial vein joins a deep vein, reduced mobility, thrombophlebitis not associated with varicose veins or previous history of VTE), NICE suggest fondaparinux or low molecular weight heparin may be used, although dose and timescale are not mentioned.

Our patient presented with a superficial thrombophlebitis of the thoracoepigastric vein that extended from their right axilla to the umbilicus. It was felt that there was a risk of progression to DVT, and the team elected to treat aggressively with prophylactic fondaparinux (the LMWH of choice in the trust). The team undertook several reviews with the patient, and elected to continue the treatment for three months based on clinical resolution of the lesion and the patient’s symptoms.

Conclusion
Superficial thrombophlebitis of the thoracoepigastric vein is a rare presentation in the AMU. Whilst it is usually innocent and self limiting, the AMU physician should be aware of the potential for underlying malignancy and more serious pathology. Whilst there is no specific regimen of treatment for Mondor’s disease, patients at risk of progressing to DVT should be considered for treatment with anticoagulation.