

## CLINICAL IMAGES

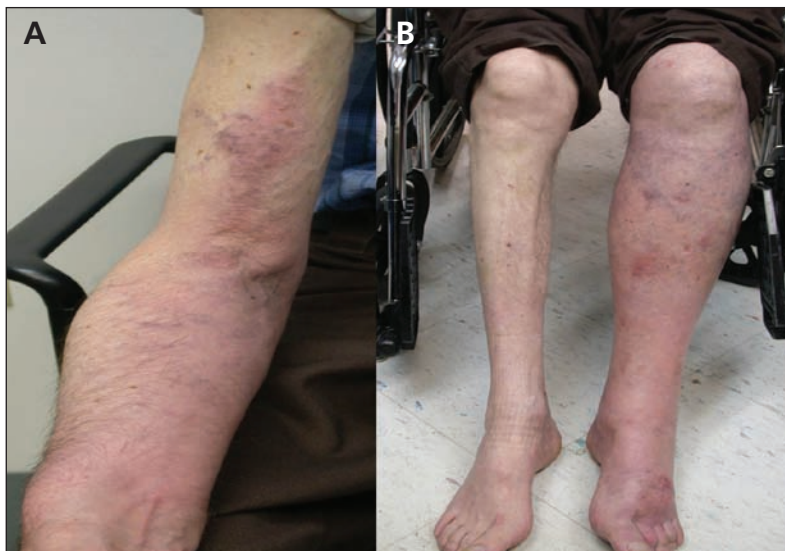
## Trousseau syndrome

Barry Ladizinski MD, Daniel G. Federman MD

A 63-year-old man with a history of schizophrenia and 100 pack-years of cigarette smoking presented with atypical chest pain and progressive painful swelling of his left leg. The leg swelling had begun 1 week after he noted painful swelling of his right arm. He had a tender cord in his upper right arm and tender edema in his lower left leg (Figure 1). Ultrasound of his leg showed a deep venous thrombosis. Computed tomography of his chest and abdomen showed a pulmonary embolism, a new 3-cm lung mass and multiple small masses in his liver. The histology of one of the lesions in his liver was consistent with adenocarcinoma, thought to be metastatic from his lung tumour. Our patient declined treatment and died 5 months later in hospice care.

Although there is no standard definition, Trousseau syndrome most often signifies spontaneous, recurrent or migratory venous thromboses (superficial or deep) in people with occult or recently diagnosed visceral malignant disease, although the term is sometimes used to describe hypercoagulability associated with any malignant disease.<sup>1,2</sup> The syndrome was initially described in 1865 by Armand Trousseau; 2 years later, he developed this syndrome as a result of gastric carcinoma.<sup>2</sup> It is most commonly associated with mucin-producing adenocarcinomas of the pancreas or lung. Hypercoagulability is thought to be initiated by mucins produced by the adenocarcinoma reacting with leukocyte and platelet selectins to form platelet-rich microthrombi.<sup>2</sup>

Heparin is the preferred anticoagulant for this type of thromboembolism because it can inhibit the binding of leukocyte and platelet selectins to their ligands, unlike vitamin K antagonists (e.g., warfarin) or direct thrombin inhibitors (e.g., dabigatran).<sup>1,2</sup> Heparin should be continued indefinitely for patients with active cancer and



**Figure 1:** A 63-year-old man with Trousseau syndrome had tender superficial thrombophlebitis in his right arm (A) and edema in his left leg with underlying deep venous thrombosis (B).

Trousseau syndrome, because stopping treatment for even 1 day can result in the recurrence of thromboses.<sup>1,2</sup>

## References

1. Callander N, Rapaport S. Trousseau's syndrome. *West J Med* 1993;158:364-71.
2. Varki A. Trousseau's syndrome: multiple definitions and multiple mechanisms. *Blood* 2007;110:1723-9.

Clinical images are chosen because they are particularly intriguing, classic or dramatic. Submissions of clear, appropriately labelled high-resolution images must be accompanied by a figure caption and the patient's written consent for publication. A brief explanation (250 words maximum) of the educational significance of the images with minimal references is required.

**Competing interests:** None declared.

This article has been peer reviewed.

**Affiliations:** From the Department of Dermatology (Ladizinski), Duke University Medical Center, Durham, NC; and the Department of Medicine (Federman), VA Connecticut Healthcare System, West Haven, Conn.

**Correspondence to:** Barry Ladizinski, barylaladizinski@gmail.com

**CMAJ 2013. DOI:10.1503/cmaj.121344**