

Deep vein thrombosis of the lower limb secondary to lumbar discal hernia compression: a rarity? Review of the literature

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SUMMARY: Deep vein thrombosis of the lower limb secondary to lumbar discal hernia compression: a rarity? Review of the literature.

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This case report is about a 70-years-old female patient, suffering from discal hernia, with compression of the iliac vein, that led to the formation of deep vein thrombosis of the lower limbs. The angio-CT scan revealed the starting point of the L4- L5 compression where a voluminous discal hernia caused deep vein thrombosis, with the involvement the femoro-popliteal venous axis. Blood samples and PET-CT scans excluded other possible etiologic factors. This case demonstrates how a voluminous discal hernia can cause venous thrombosis.

KEY WORDS: Deep vein thrombosis - Discal hernia - Lower limb.

Introduction

Although not unanimously accepted, countless cases of thrombosis of the iliac veins due to discal hernia surgery, surgery for compressive retroperitoneal masses or surgery for hematoma that somehow compress the vena cava, provoking an alteration of blood flow, and consequent stagnation, with possible insurgence of venous thrombosis of the deep circulation are reported in literature (1).

The retroperitoneal complications can occur in the course of hyperacute illness, late complications or subacutely with a symptom-free interval of a few days (2).

If there are symptoms such as back and sciatic pain, a rare syndrome with iliac vein thrombosis attributed to the absence of the infrarenal segment of the inferior vena cava (IVC), with massively dilated collateral venous drainage, through a paraspinal plexus in the azygos system is described. Initial investigations with CT revealed an intraspinal lesion mimicking a lumbar disc hernia. Further

clarification revealed an iliac vein thrombosis, triggered by the absence of the infra-renal segment of the IVC. A very rare vascular anomaly (3). IVC thrombosis should be considered a differential diagnosis for inexplicable lower back or abdominal pain especially in young patients. Malignant disease and congenital IVC anomalies seem to be predisposing factors for thrombosis involving the inferior vena cava (4).

Case report

A female patient aged 70 years came to our emergency room lamenting severe pain in the left lower limb associated with a sense of warmth and tingling. On inspection, the limb is edematous and swollen. The skin is hyperemic and warm. It presents small hemorrhagic spots. Doppler ultrasound of the lower limbs was not executed due to the severe pain experienced by the patient. Blood counts Hgb: 11.30, HCT: 34.30%, PLT: 259 000, Neutrophils: 85.5% Lymphocytes: 8.4%, PT: 85.20%, PT-INR: 1.12 Fibrinogen: 454.90%, AIII: 81.70%, D-Dimer: 95.00 ng/ml deposed for venous thrombosis. For ulterior diagnostic clarity, a lower extremity CT scan with and without contrast material was done. It revealed "a broad massive discal protrusion of the L4-L5 intersomatic disc, which anteriorly compresses the left iliac vein (Fig. 1), just before the confluence with the contralateral iliac

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Fig. 1 - Ct image of the anterior compression of the left iliac vein.



Fig. 3 - Contralateral iliac vein (left view).

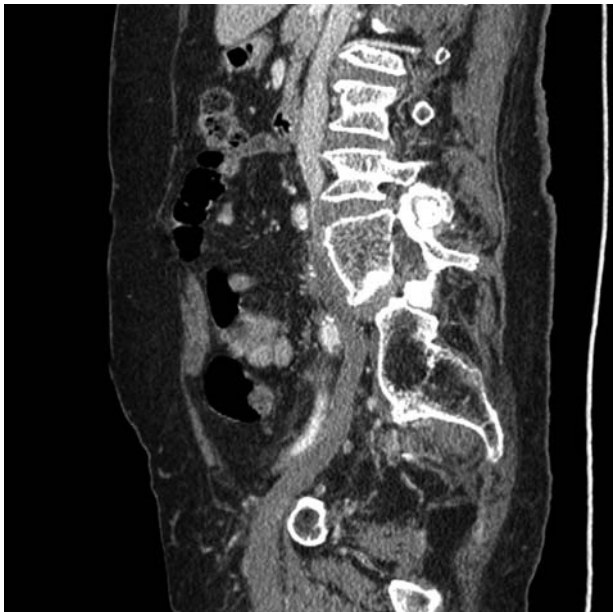


Fig. 2 - Contralateral iliac vein (right view).



Fig. 4 - Deep-vein thrombosis of the twin veins.

vein (Figs 2, 3). An ipsilateral filling defect at full size of the iliac-femoral-popliteal venous axis and the twin veins as for deep-vein thrombosis is present (Fig. 4)⁷.

Epidural venous engorgement should be considered when the symptoms of patients with deep venous and inferior vena cava thrombosis are accompanied by radicular and/or back pain, because pathologic processes compressing a nerve root can cause pain (5). In some ca-

ses, as we have observed in a pregnant woman, thrombosis of inferior vena cava can extend to the renal vein giving rise to a more complex set of symptoms (6).

A PET-CT 18F-FDG scan did not reveal areas of increased pathological uptake, and was negative for paraneoplastic syndrome. The patient was subjected to medical therapy with low molecular weight heparin and elasto-compressive bandage of the compromised limb.

Discussion

The deep vein thrombosis is a serious complication of discal hernia that has not yet been tackled. From a ca-

reful review of literature, we found no other cases of DVT caused by discal hernia. We therefore describe not only a rare clinical case, but also a new possible cause of venous thrombosis.

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