We describe a case in which a nodular fasciitis tumor process caused vascular impairment in the right femoral region, two weeks after a coronary angiography in which the right femoral artery had been punctured. Nodular fasciitis is a benign tumor of fibrous origin and has been associated with antecedent trauma. Deep venous thrombosis (DVT) due to a nodular fasciitis tumor process has never been reported previously.

Keywords: Deep venous thrombosis; Nodular fasciitis; Puncture femoral artery; Magnetic resonance imaging.

Introduction

Deep venous thrombosis (DVT) is not a rare condition. However, we describe a case of DVT, likely due to local compression by a nodular fasciitis tumor process. To our knowledge this combination has never been described so far.

Case Report

Clinical history

A 42-year-old woman presented with a suspicion of a DVT of the right leg. On physical examination we found the right leg was diffusely swollen, warm and tender to palpation. Normal lower limb pulses were present.

The medical history revealed no additional information, except for coronary angiography (CAG) which had been performed two weeks previously for suspected coronary artery disease. Puncture of the right femoral artery had been uncomplicated without the use of any closure device.

Radiological findings

Ultrasound examination showed thrombosis of the external iliac and common femoral veins. Surgical venous thrombectomy was attempted. On making a groin incision we were confronted with a solid, grey-coloured tumor of 6 by 3 cm, embedded in the connective tissue next to the femoral vein and artery. The tumor appeared to be malignant which in combination with the close connection to the adjacent vessels made us to decide not to perform the venous thrombectomy. Incision biopsies were taken.

Magnetic resonance imaging (MRI) showed a diffuse mass surrounding the femoral artery and vein, encasing the latter. Thrombus was clearly visualized in the dilated right femoral vein (Fig. 1A and B). The patient was treated with Nadroparin injections (5700 IU two times a day; Fraxiparine®, Sanofi-Aventis) followed by acenocoumarol.

In the following weeks we observed gradual regression of the tumour. Swelling of the right leg diminished, and tenderness reduced. After three months, the patient had no symptoms. MRI now
showed almost completely restored and normal anatomy of the right femoral region (Fig. 2).

**Pathological findings**

Histological examination revealed a reactive lesion, with a pseudosarcomatous appearance, typical of nodular fasciitis.

**Discussion**

Nodular fasciitis is a benign, non-neoplastic proliferation of myofibroblasts that was first described in 1955. It is characterised by rapid growth and a deceptive histological appearance. In our patient, the lesion was located in the inguinal region, which is an unusual site for nodular fasciitis to occur. There are case reports describing intravascular forms of nodular fasciitis in the inguinal region. A minority of cases (10–15%), has been reported to be associated with trauma. In this case the puncture of the femoral artery could have been the inciting factor. We would like to emphasise the possible relationship between vascular trauma (puncture of the femoral artery), which is steadily increasing in volume of interventional arterial procedures, and the development of a nodular fasciitis tumour in this case. Nodular fasciitis can resolve spontaneously, without the need for surgical excision. However, excision has been recommended as the main form of treatment. Corticosteroids, injected into the tumour have also been reported to be effective. Excisional treatment would have been difficult in our case, because of the adjacent vessels. For this reason, and the fact that our first thought was a malignant process, we did not attempt an excision. Intravascular fasciitis could not be excluded for the same reasons.

**Conclusion**

We describe a case in which a lesion, that appeared to be nodular fasciitis, caused serious vascular impairment because of the total compression of the external iliac vein and the femoral vein on the right side. It is highly probable, that deep venous thrombosis was a direct result of this compression.
References


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