

CASE REPORT

Intravascular Lipoma of the External Iliac Vein and Common Femoral Vein

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Introduction

A lipoma is the most common soft tissue tumour. This benign mass can arise at any location in the body containing adipose tissue, but particularly in subcutaneous tissues of the upper half of the body and proximal extremities.^{1,2}

Primary intracardiac tumours, including lipomas are well documented. Primary tumour of the major central veins arise most frequently from the inferior vena cava, the right brachiocephalic vein and the superior vena cava, but are very unusual. Primary tumours of the lower leg veins are rare but usually malignant lesions, leiomyosarcoma being the most frequent. Benign forms mainly represented by leiomyomas are exceptional.³ Only two cases of lipoma arising from major leg veins have been previously reported.^{2,4,5} We present a case of an intraluminal lipoma of the external iliac vein and common femoral vein.

Case Report

A 46-year-old woman was referred with a two-year history of progressively increasing swelling and varicose veins of her right leg. Duplex scanning was performed. No evidence of deep vein thrombosis in

the right leg was found, reduced flow in the right common femoral vein with external compression and reflux down the great saphenous vein were also shown. The patient underwent an unenhanced computed tomography (CT) scan of the abdomen and pelvis that showed a well-defined rounded mass of fat attenuation. It was in the right pelvis passing through the inguinal ring towards femoral vessels and causing vascular compression.

Phlebography was undertaken in order to confirm the uncertain diagnosis. The lumen of the right external iliac and common femoral veins calibre seemed to be considerably reduced compared with the left extremity and a large filling defect was discovered (Fig. 1). Magnetic resonance imaging (MRI) scan confirmed the presence of an adipose tumour in pelvis and groin (Fig. 2).

Because the patient's symptoms did not improve despite compression stockings, elective surgical excision of tumour was planned. At operation, the femoral vessels, arteries and veins were dissected as for an inguinal tumour resection. Haemorrhage occurred during the common femoral vein dissection where the mass was intimately involved with the vein wall. Therefore a retroperitoneal approach was used access the iliac vessels. A large mass, 10 × 6 cm, was found lying adjacent to the iliac vessels. The sac of the lipoma was opened, resulting in significant an important haemorrhage. We realised then that we had opened the wall of the external iliac vein with the

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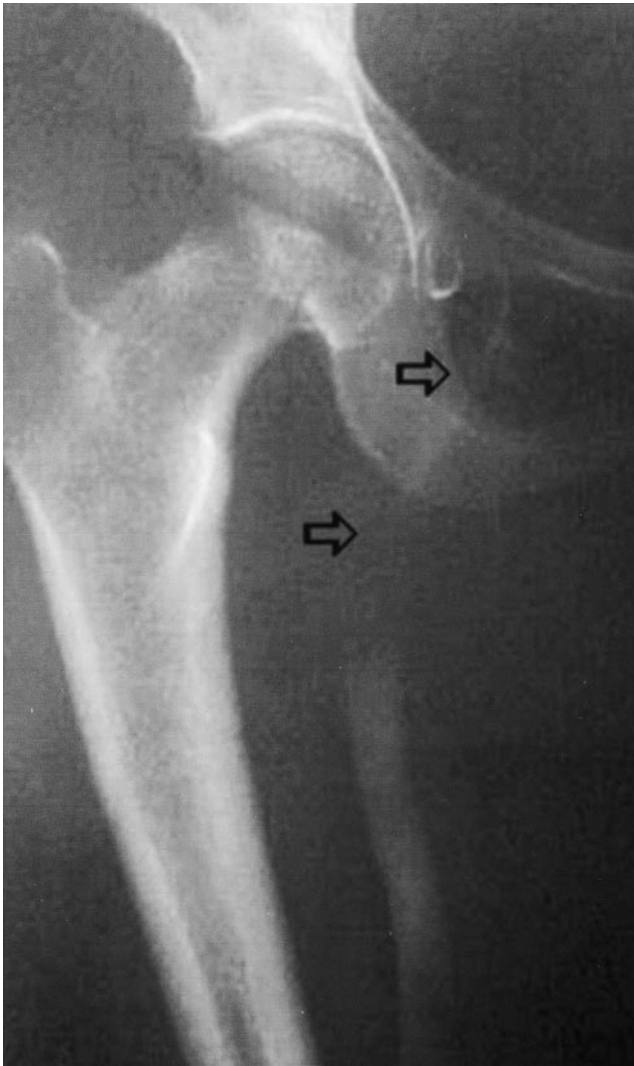


Fig. 1. Phlebography showing a filling defect in the lumen of the right external iliac and common femoral vein (arrows).

huge tumour inside. The wall vein was opened to reveal an intraluminal lipoma occluded the venous lumen and measured 10 cm in length and 6 cm in diameter. As the vein was widened, by the tumour we resected part of the external iliac vein wall with the tumour vein closing before repairing it with profene.

Histologically, the tumour was composed of a uniform adipose tissue consistent with a benign lipomatous tissue. Postoperatively, the patient was given subcutaneous low molecular heparin for one week. The postoperative course was uneventful, and the swelling and symptoms disappeared. The patient was discharged home on the fifth postoperative day. At 6 month follow-up the patient was asymptomatic and the deep venous system was patent on duplex scanning.

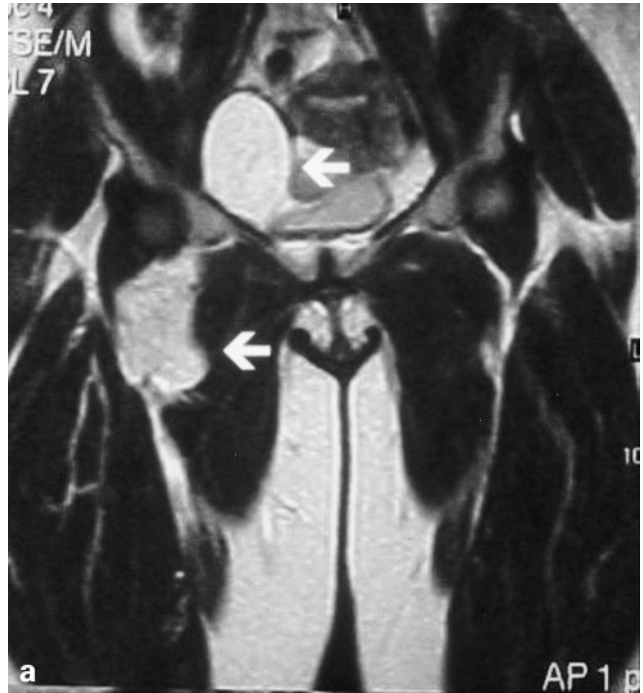


Fig. 2(a). MRI. Longitudinal MRI sections showing a fatty tumour in pelvis passing through the inguinal ring like an 'Hour glass' (arrows).

Discussion

This case of a primary intravascular lipoma arising directly from the wall of a major lower-extremity vein is extremely unusual. This is the first case affecting iliac veins reported in the literature. A computerized search was made in Medline (1980 to 2001). Our review found two cases of intravascular lipoma arising from the wall of the left common femoral vein in patients who had progressive left leg swelling and in whom a deep venous thrombosis in the common femoral vein was initially diagnosed. The diagnosis of an intravascular lipoma was diagnosed by a CT scan showing a filling defect in the left common femoral vein with fatty tissue attenuation.^{2,4,6} The diagnosis is difficult for the unusual of this pathology. In our case we only made the diagnosis intraoperatively, despite exhaustive preoperative study investigations.

Prosthetic grafts, autologous venous tube grafts, allograft vein conduit and saphenous vein grafts have all been used for venous reconstruction for different indications. All present a potential risk of thrombosis and occlusion.² In this case we were able to reconstruct the external iliac and common femoral vein after resecting part of the widened wall.



Fig. 2(b). Transverse MRI sections of the inguinal region showing the presence of the tumour inside of the right femoral common vein (asterisk). FV: femoral common vein. FA: femoral common artery.

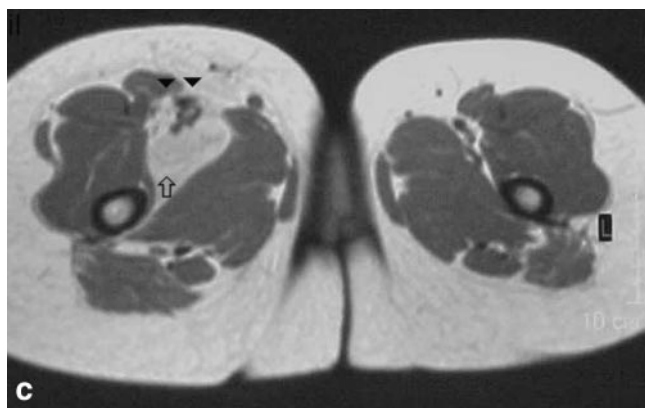


Fig. 2(c). Transverse MRI sections of the thigh showing the presence of the tumour inside (▼) and outside (♂) of the right femoral common vein.

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