

Symptomatic fractured iliac venous stent in a young patient

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A 30-year-old man, avidly athletic (jogging, swimming), presented with a 2-year history of recurrent, lifestyle-limiting left lower extremity exertional fatigue. He consented to this publication. Symptoms initially resolved for 6 months after left iliofemoral vein stenting (16 × 100 mm Venovo) elsewhere for occlusion of indeterminate etiology. Physical examination revealed tightness, increased left lower extremity circumference without signs of chronic venous stasis, and normal arterial pulses. He denied history of venous thromboembolism. Duplex ultrasound (DUS) examination and a computed tomography venogram revealed stent fracture at the inguinal ligament (A/Cover). There was extensive soft tissue thickening surrounding the common femoral artery, which was positron emission tomography scan negative. Postexercise ultrasound examination revealed no vaso-spasm/endofibrosis. Infringuinal deep veins were normal on DUS examination.

Open reconstruction was performed through a longitudinal left groin incision. Left iliofemoral exploration revealed scarring and dense inflammatory rind deep into the inguinal ligament. The stent struts protruded through the vein wall and were densely adherent to the iliofemoral artery. A 4-cm segment of iliofemoral vein containing the crushed stent was excised, cut using a Smith wire cutter, and the edges pared back. It was replaced with a spiral right great saphenous vein conduit constructed over a 36F mandril.¹ The patent proximal external iliac and distal common femoral vein stent were preserved. This avoided a flank incision and allowed reconstruction with a shorter spiral graft (B). The saphenofemoral junction was reconstructed with endovenectomy and basilic vein patch (C). A segment of iliofemoral artery injured secondary to the inflammatory process caused by the stent was replaced with a left basilic vein conduit. Bovine pericardium was positioned to protect this arterial graft from preserved proximal external iliac stent (C). Intraoperative DUS examination was satisfactory.

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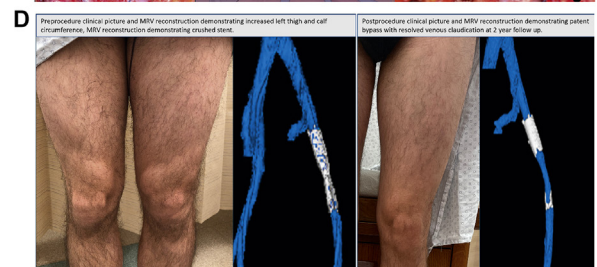
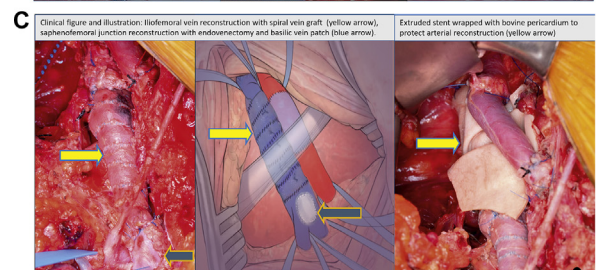
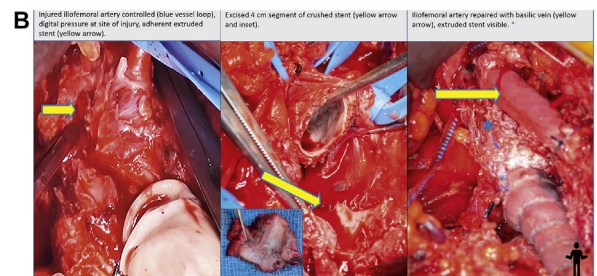
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Postoperatively, anticoagulation with heparin was titrated, and therapeutic by postoperative day (POD) 2. Wound hematoma compressing the vein graft was evacuated on POD 4. Recovery thereafter was unremarkable, with hospital discharge on POD 8. He was continued on therapeutic rivaroxaban and remains asymptomatic, returning to vigorous activity with a patent reconstruction 2 years later (*D*). Dedicated venous stents have greater radial force than Wall-stents,^{2,3} the safety of stenting across the inguinal ligament remains unclear.⁴

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