

Endovascular treatment of an inferior vena cava aneurysm in a patient with blue rubber bleb nevus syndrome

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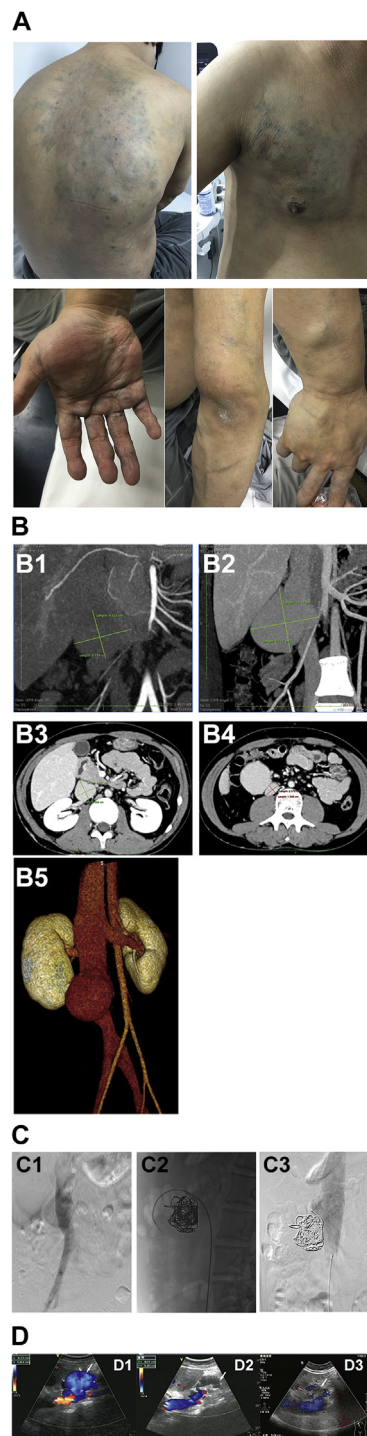
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In 2017, an 18-year-old male patient with a previous diagnosis of blue rubber bleb nevus syndrome (BRBNS; A) and an asymptomatic inferior vena cava (IVC) saccular aneurysm was referred to our department, because of sudden unrelievable abdominal pain, which was considered related to aneurysm growth compared with the computed tomography examination 2 years previously (aneurysm size, 45 mm × 38 mm vs 65 × 61 mm; B1 and B2). The critical cardiopulmonary conditions related to BRBNS and the necessity of placing the incision through the diffuse cutaneous venous malformation were contraindications to open surgery. Also, the 5-mm length from the aneurysm to the renal vein and the large diameter difference between the proximal and distal vena cava (32 mm vs 19 mm) meant that stent-graft exclusion of the IVC aneurysm was unfeasible (B3 and B4/Cover). Finally, an endovascular embolization plan using detachable coils was made. In brief, after the initial angiogram (C1), a total of 10 detachable coils were deployed into the aneurysm as planned (C2), including two 20-mm × 40-cm, two 18-mm × 40-cm, four 15-mm × 40-cm, and two 12-mm × 40-cm Interlock-35 coils (Boston Scientific, Marlborough, Mass). The completion angiogram showed complete embolization of the aneurysm sac (C3).

The abdominal pain had totally resolved, and the patient was discharged uneventfully. Compared with the preoperative ultrasound scan (D1), the 7-day (D2) and 2-year (D3) ultrasound follow-up scans demonstrated total thrombosis of the aneurysm sac, patent flow of the IVC, and aneurysm shrinkage from 58.4 × 42.3 mm to 37.5 × 24.5 mm. The patient provided written informed consent for the report of his case.

BRBNS is an extremely rare entity that manifests as multiple congenital venous malformations and cavernous hemangiomas.¹ An IVC aneurysm is a rare, but life-threatening, venous disorder. We performed a literature review to elaborate the treatment strategies for IVC aneurysms.² To the best of our knowledge, the presence of an IVC aneurysm in a patient with BRBNS has not been previously reported. Whether the two rare entities were associated deserves further investigation.

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