Case Report

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Endovascular repair of a dual abdominal aortic aneurysm in Behçet's disease

Behçet hastalığında dual abdominal aort anevrizmasının endovasküler tamiri

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ABSTRACT

Behçet's disease is an inflammatory multisystemic vasculitis characterized by orogenic ulcers and ocular lesions and its etiology is still unknown. The incidence of aortic aneurysms is 2 to 6% in patients with Behçet's disease and 18% of these aneurysms are in multiple pattern. Herein, we represent the first case of a dual true saccular abdominal aneurysm in Behçet's disease which was treated with endovascular repair technique.

Keywords: Abdominal aortic aneurysm; Behçet's disease; endovascular graft.

ÖZ

Behçet hastalığı, orojenik ülserler ve oküler lezyonlarla karakterize, enflamatuvar multisistemik vaskülit olup, etyolojisi halen bilinmemektedir. Behçet hastalığı olanlarda aort anevrizmalarının insidansı %2-6 olup, bu anevrizmaların %18'i multipl paternlidir. Bu yazıda, Behçet hastalığında endovasküler tamir tekniği ile tedavi edilen ilk dual gerçek sakküler abdominal anevrizma olgusu sunuldu.

Anahtar sözcükler: Abdominal aort anevrizması; Behçet hastalığı; endovasküler greft.

Behçet's disease was first described by a Turkish dermatologist Hulusi Behçet in 1937.[1] Vasculitis is considered as the reason of all pathologies in this disease. The incidence of aortic aneurysms is 2 to 6% and 18% of these aneurysms have been reported as multiple.[2] Herein, we represent a very rare case of a dual saccular abdominal aortic true aneurysm which was treated by endovascular intervention.

CASE REPORT

A 31-year-old male patient was admitted to the emergency clinic with abdominal pain for one month. He was diagnosed with Behçet's disease for about a week ago and was on medical treatment with oral prednisolone 16 mg (two tablets twice a day) and azathioprine 50 mg (one tablet daily). In the laboratory findings, there was a mild increase in white blood cell count and erythrocyte sedimentation rate (ESR; 16.3×10^3/mL and 28 mm/h, respectively). Two abdominal aortic saccular aneurysms were reported in the abdominal aortic computed tomographic angiography imaging which was done in the emergency setting. The first one was located in the infrarenal abdominal aorta which was measured 3.2 cm long and 2 cm wide. The second one was located just inferior to the first one which was measured 4.5 cm wide (Figure 1).

Other possible causes of abdominal pain were eliminated in the differential diagnosis. The patient was hospitalized for an endovascular intervention.

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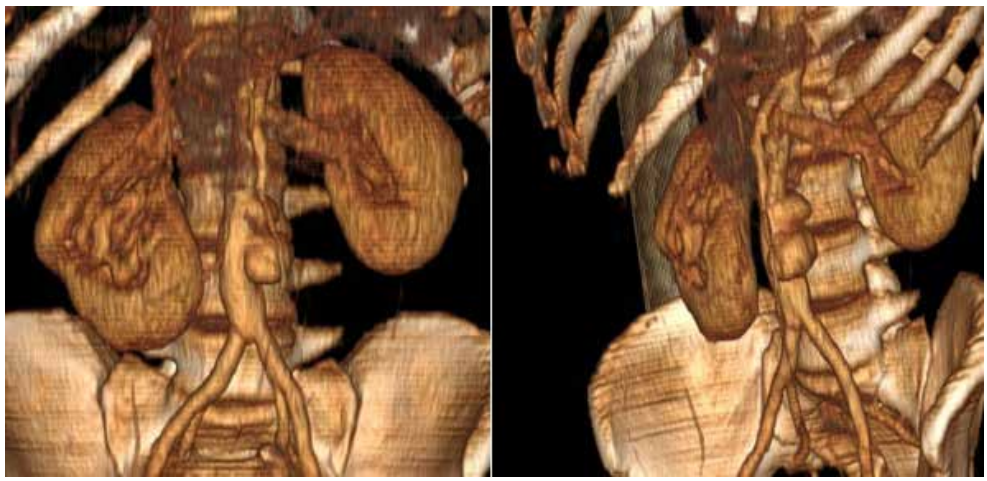

Figure 1. Three-dimensional computed tomography angiography showing a dual saccular abdominal aneurysm.

Colchicine 1 mg tablets daily was added to the medical treatment regimen.

Operation technique

A written informed consent was obtained from the patient and he was operated under local anesthesia. After proper dose heparin administration, 8F introducer sheaths were placed in both common femoral arteries (CFAs). Two saccular true aneurysms were observed in the infrarenal abdominal aorta as described before through digital subtraction angiography (DSA). The main body (23×14.5 mm × 14 cm, GORE® EXCLUDER® AAA Endoprosthesis, W. L. Gore & Associates, USA) was delivered via the right CFA through the introducer sheath. Then, contralateral limb of the stent graft (16×14.5 mm × 10 cm) was delivered through the right CFA. In control DSA images, there was no opaque filling into the aneurysm sacs; therefore, they were accepted to be totally occluded. There was no leak off the stent graft and no occlusions in the main arterial structures (Figure 2).

The patient was discharged in the postoperative third day with oral clopidogrel 75 mg daily prescription. In the sixth month follow-up, no vascular complications were observed.

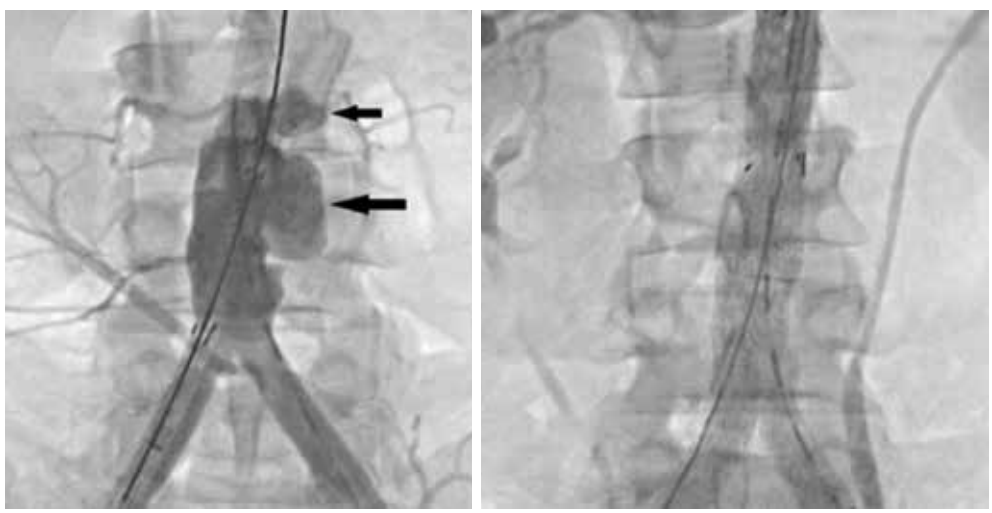

Figure 2. Pre- and postoperative digital subtraction angiography showing successful endovascular grafting to true dual saccular abdominal aneurysm.

DISCUSSION

Endovascular repair of abdominal aortic aneurysms in inflammatory diseases such as Behçet's disease is considered a better alternative than open surgical repair due to high morbidity and mortality risks.[3]

Endovascular aneurysm repair (EVAR) is an alternative to surgery in high-risk patients. In selected patients with aneurysms of the large arteries, it is a minimally invasive, safe and effective method.[4] The disadvantages such as difficulty of emergency intervention, blood product preparation prior to surgery, comorbidities that may be present in patients are also avoided in endovascular interventions.[5] However, EVAR has some post-interventional complications, such as recurrence of the aneurysm. This may be due to chronic irritation of the stent endograft of the aortic wall.

It is recommended by the European League Against Rheumatism (EULAR) that systemic immunosuppressive agents should also be added to medical therapy plan of the peripheral arterial aneurysms besides surgical aneurysm repair; however, the time period and doses of these immunosuppressive agents was not included in this recommendation.[6]

The ESR and C-reactive protein (CRP) levels reflect the activity of the autoimmune disease. The optimal intervention period (remission) should be decided by monitoring the ESR and CRP levels. In this case, ESR and CRP levels were low and, therefore, we continued the immunosuppressive therapy in the postoperative period as recommended by the EULAR.

Wang et al.[7] reported a case of Behçet's disease with two fusiform true aneurysms. In this patient, one of the aneurysms was in descending aorta (34.4 mm) and the other one was in proximal abdominal aorta (34.8 mm). Kassasian et al.[8] reported a 51-year-old male patient with Behçet's disease. The patient had two pseudoaneurysms in suprarenal (66 mm) and infrarenal (55 mm) abdominal aorta. We found no other case of dual saccular true aneurysm of abdominal aorta in Behçet's disease treated with EVAR that was reported in the literature.

In conclusion, due to the long-term complications after open surgical repair of the aortic aneurysms in inflammatory vascular diseases such as Behçet's disease, we believe that endovascular repair techniques should be considered.

Declaration of conflicting interests

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