

## Case Report

### Recurrent Femoral Pseudo-Aneurysm in a Patient with Behçet Disease

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#### Abstract

Behçet's disease is a systemic vasculitis with vascular tropism. Arterial lesions are rare. We report the case of a 46-year-old patient, followed for Behçet's disease under immunosuppressive and corticosteroids treatment, admitted to our department for the management of a recurrent aneurysm of the right superficial femoral artery diagnosed by computed tomography, and treated surgically by exclusion and interposition of a graft.

**Keywords:** Behçet's disease; False aneurysm; Recurrence; Surgery; Outcomes

#### Introduction

Behçet's disease is a systemic vasculitis with rare arterial manifestations. Most often it results in aneurysms, sometimes arterial occlusions. It is observed more commonly among men between the ages of 20 and 40 years.

The surgical treatment of a Behçet aneurysm is challenging for the vascular surgeon because of the technical difficulties and the new postoperative false-aneurysm development [1]. Endovascular management of these aneurysms by placing a covered stent is a good alternative to conventional surgery with fewer complications.

#### Case Report

This is a 46-year-old patient, followed for 10 years for Behçet's disease under immunosuppressive treatment and corticosteroids, was operated eight years ago for false aneurysm of the superficial femoral

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artery. He had interposition of a synthetic graft to maintain the continuity of the artery after exclusion of the aneurysm. Two years later, he underwent surgery for anastomotic pseudo-aneurysm.

Now, he was admitted to our structure for a pulsatile painful mass of the right leg (Figure 1). The computed tomographic angiography revealed a sacciform false aneurysm of the distal anastomosis of the right superficial femoral artery with a diameter of 80 mm and a length of 90 mm, partially thrombosed (Figures 2&3).

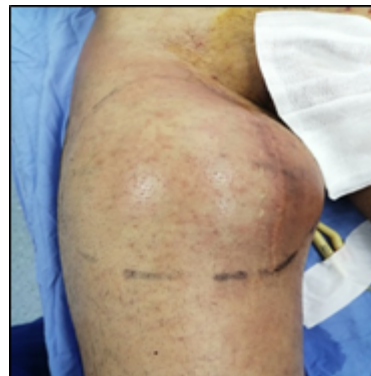
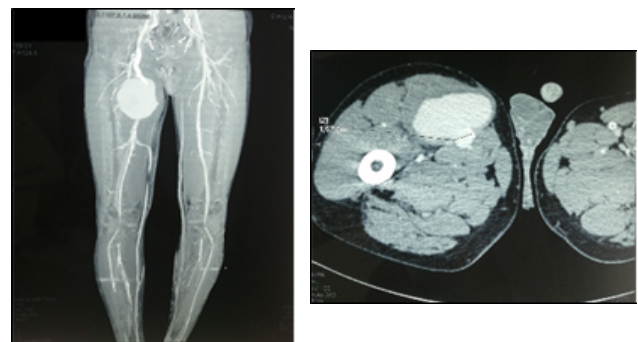


Figure 1: Photograph showing a mass in the leg.



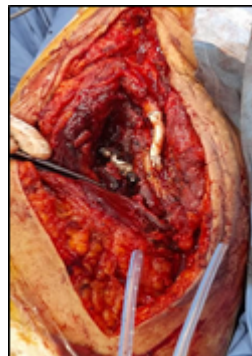
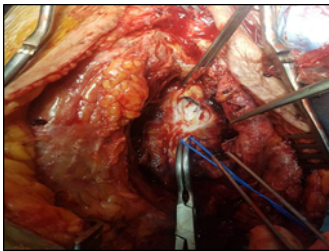
Figures 2&3: CT scan showing a saccular false aneurysm of the right superficial femoral artery.

So, the indication for emergent surgery was retained. He was operated under general anesthesia. After controlling of the prosthesis and the artery, heparin was administered, and they were clamped. The pseudo-aneurysm was opened. There was a partial dehiscence of the anastomosis.

Repair was done by interposition of a short graft between the prosthesis and the femoral artery (Figures 4,5& 6). The postoperative follow-up was simple, and the evolution was satisfactory.

#### Discussion

The vascular involvement in the Behçet disease is divided into three groups: venous occlusion, arterial occlusion, and aneurysm formation.



**Figures 4 & 5:** Intra-operative views the arterial lesion and the interposition of a graft.



**Figure 6:** Photograph showing the operative suture after operation.

Superficial and deep vein thrombophlébites are the most commonly seen disorder. They may be complicated by pulmonary embolism [2]. Arterial manifestations are rare, most often result in aneurysms than occlusions [3]. The most common site of aneurysm formation is the aorta, followed by the pulmonary and femoral arteries [4].

The majority of peripheral and concomitant aortic aneurysms appeared to be pseudo-aneurysms. Aneurysms may be complicated by fatal rupture [5].

Due to increased risk of rupture, surgical treatment is the main line of the treatment of systemic arterial aneurysms [6]. Treatment options include also endovascular stent implantation.

The surgical treatment of a Behçet aneurysm is challenging for the vascular surgeon because of the technical difficulties and the possibility of postoperative false-aneurysm development at anastomotic sites.

However, there is the challenge of graft occlusion and aneurysm formation at the anastomotic site or in other arteries during the postoperative course [7].

Anastomotic pseudo-aneurysm formation is a postoperative complication that is considered to occur frequently in Behçet disease patients and is sometimes life threatening [8]. The anastomotic fragility in patients with Behçet disease may be attributable to weakening of the arterial wall caused by fulminant inflammation.

Also, in patients with Behçet's disease, a higher recurrent rate of aneurysms after open surgery has been reported in many series [9].

Avoiding surgical procedures during the acute phase of the disease is preferred. The pre and postoperative use of immunosuppressants for Behçet disease patients to modulate inflammation could thereby reduce the risk of complications and the incidence of recurrent aneurysms [10].

Endovascular stent graft repair of arterial aneurysms is reported to be a safe alternative to the surgical intervention. This method was not used to our patient because of the non-availability of stent-grafts in our institution.

## Conclusion

Although aneurysmal disease is rare in Behçet disease, it can cause life-threatening complications. Aneurysmal lesions respond poorly to medical treatment, and surgery is mandatory. The establishment of remission before the surgical intervention decreases the incidence of Post-operative complications, and the recurrence of pseudo-aneurysms at the site of anastomosis, which are influenced by the severe inflammatory nature of this disease.

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