

Case Report

Treatment of huge isolated true superficial femoral artery aneurysm with synthetic graft and management of Graft infection

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ABSTRACT

Introduction: True Femoral artery aneurysms are rare. Different risk factors may lead to such complications and they can lead to variable symptoms. To establish the diagnosis, imaging and as the treatment normally surgery is done. **Report:** A superficial femoral artery aneurysm was diagnosed in a 65 year old man with acute swelling of left thigh. Endoaneurysmorrhaphy with PTFE graft was done as the treatment and IV vancomycin and irrigation and debriment were applied for his graft infection. **Conclusion:** We presented a case of superficial femoral artery aneurysm and successfully treated it with endoaneurysmorrhaphy with PTFE graft and IV vancomycin and irrigation and debriment.

Keywords: superficial femoral artery aneurysm, treatment, graft infection.

Introduction

True Femoral artery aneurysms are rare. They are identified mostly in elderly males which can be related to aneurysms in other sites of the body. Causes of femoral aneurysms are not known, though atherosclerosis may play a key role. It has been proved that fibrin degeneration can play minor roles in production of an aneurysm. Some risk factors of this are high cholesterol, high blood pressure, smoking and bacterial infection.^[1] The symptoms of an aneurysm could be a thigh pain, toe ischemia, leg swelling, numbness derived from the effect

of the mass of the aneurysm or rupture. Large diameter of FAA increases the risk of rupture. Arteriosclerotic aneurysm of femoral artery may appear through uncommon lesions specially in elderly men. A true FAA grows more slowly than a false aneurysm. Pseudoaneurysm can be related to trauma, infection and anastomotic leakage but previous catheterization of femoral artery is the most important risk factors of it. To establish the diagnosis, color Doppler ultrasonography, multi detector computed tomographic (CT) scanning, and angiography are all extremely useful.^[2] As the treatment of aneurysms normally surgery is done.^[3, 4] Here we present a case of huge isolated femoral artery aneurysm for which endoaneurysmorrhaphy with synthetic graft was done as the treatment.

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Case report

A 65 years old man admitted to the hospital with acute swelling of left thigh in 10 days with redness, heat and a mass being felt anteromedial of thigh. He said a 3 days history of wide ecchymosis from back of thigh to proximal of leg. Nevertheless he had no significant past history of HTN, cardiovascular disease, DM and infectious disease. Also he had no history of drug using,

smoking and family history of vascular disease. Physical exam showed a tender area anterior of thigh. The mass was pulsating. Popliteal and pedal pulses in both lower limbs were palpable. The ultrasonography indicated 10×8×6 cm size of FAA.

Angiography revealed Huge superficial Femoral artery aneurysm from proximal of artery to Adductor canal. There was no noticeable laboratory data except of low Hg (about 7-8). We decided to do open surgical treatment. After spinal anesthesia we explored the superficial Femoral artery in proximal and distal of the aneurysm and endoaneurysmorrhaphy with PTFE graft was done. (Figure 1) Pedal pulses were palpable.

The patient was discharged with good general condition after 4 days. After 2 weeks patient came back to our hospital with discharge from surgical incision (Figure 2). Intravenous antibiotic (vancomycin) was started. After debridement of necrotic tissue about 10 cm of graft was exposed through the incision.



Figure 1: Surgical procedure, showing large True femoral artery aneurysm



Figure 2: It shows graft infection after surgical incision

We decided to preserve the graft and follow the intravenous antibiotic. We did serial irrigation and debridement of the wound. After 4 weeks incision was filled with granulation tissue and after 5 weeks patient was discharged with good general condition without infection in surgical site.

Discussion

We presented a case of huge isolated true Femoral aneurysm. True Femoral artery aneurysm is rare and it is due to different risk factors including atherosclerosis, high cholesterol, high blood pressure, smoking and bacterial infections. Delay in the treatment of these aneurysms, may lead to complications like limb ischemia, DVT and rupture. We used ultrasonography, CT-angiography and angiography for detecting the extension of aneurysm.^[2] A number of treatment methods have been reported. Surgery is the main one as we used in this case, too.^[3, 4]

Conclusion

We presented a case of a huge isolated Femoral artery aneurysm with successful open surgical treatment. After surgery we encountered with graft infection. One of the treatments for graft infection is graft excision but in this case we successfully preserved the graft with serial irrigation and debridement and intravenous antibiotic (vancomycin) for about 4 weeks.^[5]

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