

Peroneal Artery Aneurysm "A Case Report"

PERONEAL ARTER ANEVİZMASI "VAKA TAKDİMİ"

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Summary

Infrapopliteal true aneurysm is a rare entity. Reported cases are located in posterior tibial artery, anterior tibial artery and tibioperoneal truncus. There is no reported true aneurysm of peroneal artery in the literature. In this article a 73-year-old female patient with isolated true aneurysm in peroneal artery is presented.

Key Words: Peroneal artery, True aneurysm

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Özet

İnfrapopliteal bölgede gerçek anevrizmalar ender olarak görülmektedir. Yayınlanan vakalarda lokalizasyon posterior tibial arter, anterior tibial arter ve tibioperoneal trunkusta görülmektedir. Literatürde, peroneal artere ait gerçek bir anevrizma vakasına rastlanılmamıştır. Bu makalede, peroneal arterde gerçek anevrizma bulunan 73 yaşındaki bir bayan hasta sunulmaktadır.

Anahtar Kelimeler: Peroneal arter, Gerçek anevrizma

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True aneurysms are very rare in the infrapopliteal arteries (1,2). They have been reported to be localized in posterior tibial arteries (2,3), anterior tibial arteries (4,5), and tibioperoneal truncus (1,5). To our knowledge, there are no reported cases with true aneurysm of peroneal artery in the literature. In this article, we presented a case with true aneurysm of peroneal artery, which was diagnosed, in our clinic.

Case Report

A 73 years old female was admitted to our clinic with symptoms of bilateral acute arterial occlusion in lower extremities. She had generalized atherosclerosis, coronary heart disease, hypertension,

as well as diabetes. It was found that arterial pulses were positive in both common femoral artery but no flow was detected distal to femoral arteries with physical and vascular Doppler examination. Digital Subtraction Angiography (DSA) also showed that there was no blood flow in distal part of right superficial femoral artery and in the middle part of left superficial femoral artery (Figure 1). Bilateral femoral thromboembolectomy was performed using classical technique. Fogarty catheter could move ahead up to 30 cm and soft and fresh thrombus was extracted from both sides. At postoperative period the patient was asymptomatic and distal arterial pulses were present at earlier stage. However, arterial pulses were detectable by Doppler later on, so control angiography was performed. On her control DSA, both femoral arteries were patent, and a 6 mm- diameter aneurysm which was overlooked previously was detected in proximal part of left peroneal artery (Figure 2). Surgical reconstruction was planned, however the patient refused the operation and discharged upon on her request. Physical

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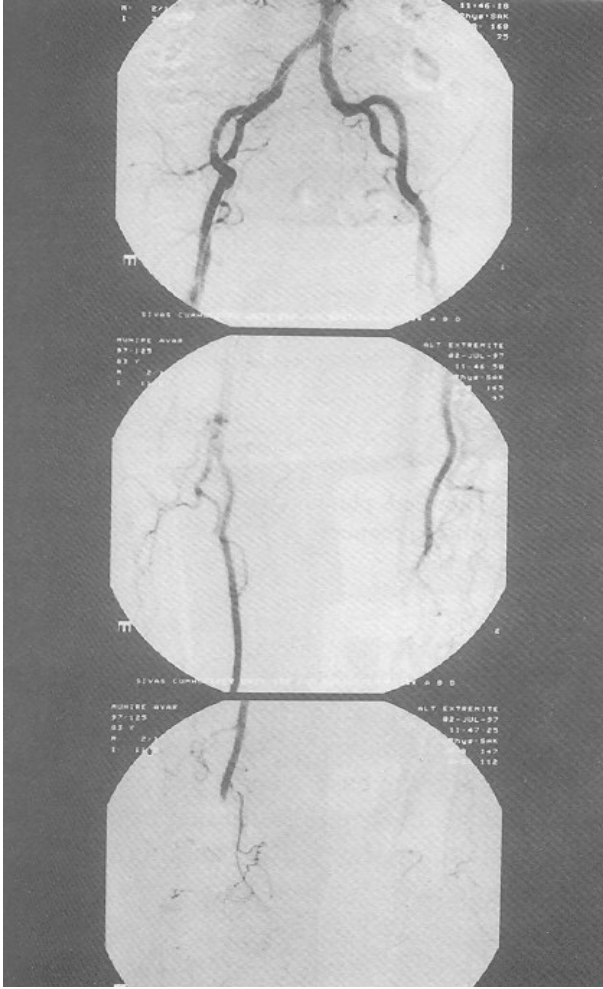


Figure 1. Atherosclerotic changes seen in terminal aorta and distal vascular bed. There were occlusions in both distal femoral arteries.

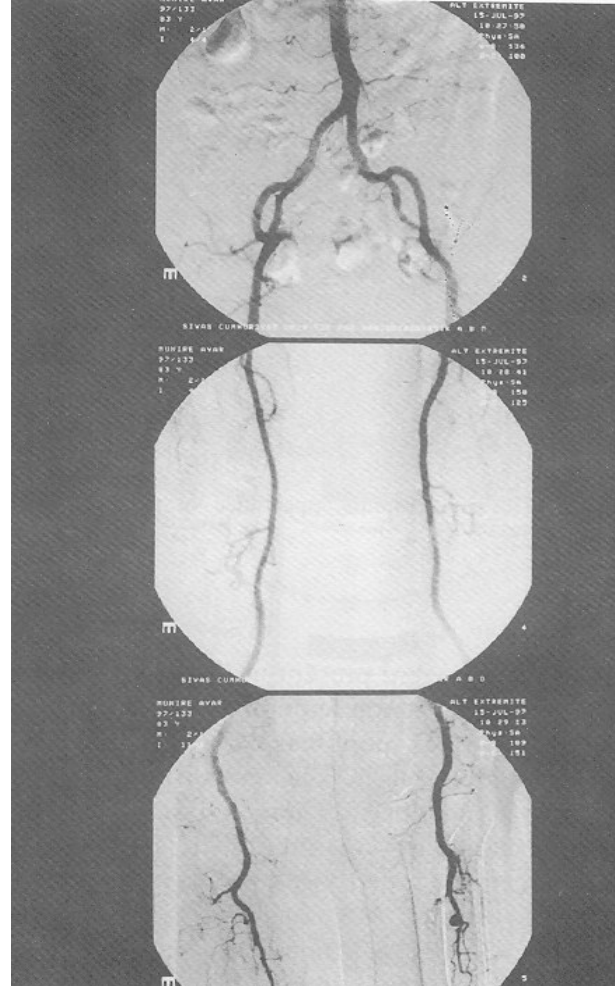


Figure 2. Postoperative control DSA shows opened arterial bed after bilateral femoral embolectomies. Aneurysmatic changes are also seen in left peroneal artery. [→ aneurysmatic changes are also seen in left peroneal artery]

and ultrasonography examinations showed that the size of the aneurysm has sustained and there was no sign of ischemia after ten month (Figure 3).

Conclusion

Papas reported the first case of infrapopliteal true aneurysm in 1964 (3). Till now a few true aneurysms located in anterior tibial artery, posterior tibial artery and tibioperoneal truncus have been published (1-5). According to our literature review, we did not meet any true aneurysm localized in peroneal artery, except pseudoaneurysm (5).

It is known that atherosclerosis (6), Behçet's disease (7), periarteritis nodosa (2) are etiologic factors of infrapopliteal true aneurysms. These

aneurysms can be both symptomatic (1,2,4,7) and asymptomatic (8). The diagnoses was made by clinical evaluation, Doppler ultrasound, and peripheral angiography (1,2,5,7).

Surgical treatment is suggested for the large and symptomatic aneurysms, however, there is no consensus for the surgical treatment of the patients with asymptomatic aneurysms (1,2,4,8). Some surgeons suggest that surgical treatment avoids complications such as rupture, distal emboli, thrombosis and ischemia (1,2).

This was a primary true aneurysm, which was progressed on the atherosclerotic basis. Although arterial wall was regular in angiography, decreased arterial opacity were present at iliac arterial bifur-

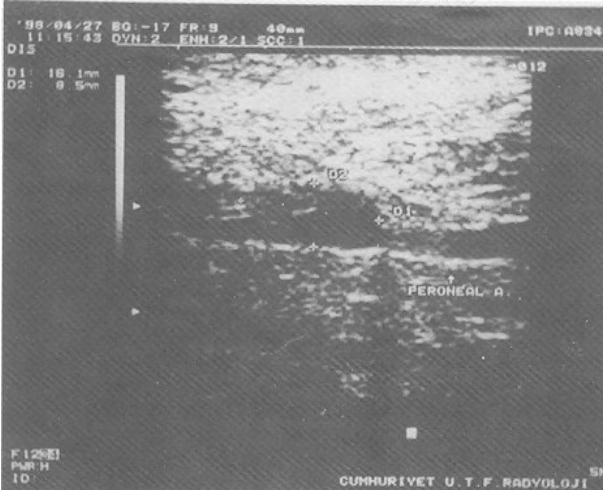


Figure 3. Ultrasonographic appearance of peroneal artery aneurysm.

cation and left common femoral artery. Irregular aspect of the right popliteal artery was notable. Besides, preoperative observation of atherom plaques was another valuable sign than that of lumen information of angiography alone. We had no pathological specimen because aneurysmectomy was not performed. Pseudoaneurysm due to iatrogenic trauma has been ruled out, because embolectomy was performed without any difficulty and catheter did not pass from trifurcating. Neither enlargement and pain nor hematoma was detected in the early postoperative period. Also there was a suspected area on her preoperative DSA (Figure 4). But this finding was overlooked due to acute arterial occlusion. The preoperative angiography has not been performed to show the existing aneurysm. Therefore, angiographic shoot was not centered to aneurysm and naturally was insufficient. However, the aneurysm was slightly apparent in the zoomed image. Mean while, it was quite clear in postoperative angiography. Since, our primary intention was to control effectiveness of the thrombectomy; the biplane angiography was not planned, which would be better to eliminate possible superposition and torticity. For that reason, no further detailed investigation had been planned. Besides, the Doppler findings were supporting the existence of an aneurysm, which was clearly situated in the track of the peroneal artery. Therefore, we decided that it was a true aneurysm of the peroneal artery.

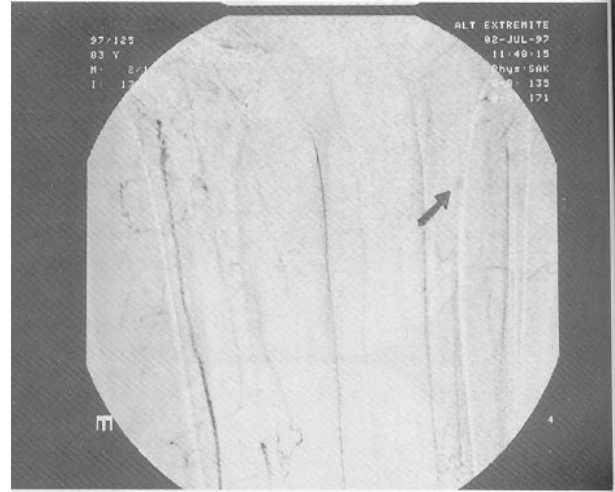


Figure 4. Magnified photomicrograph of aneurysmal area which is examined preoperative DSA in detail is pointed out. [→ aneurysmal area]

The aim of this case report is to point out the importance of education, general approach to the events and systematical observations to the clinical problems. And the case was a good sample of these kinds of cases that could help better understanding of importance of the control angiography, following a thrombectomy operation.

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