

Kalça cerrahisinden sonra derin ven trombozu sanılan bir yalancı anevrizma: olgu sunumu

A false aneurysm mistaken for a DVT after hip surgery

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Genellikle arter duvarının travmatik, yatrojenik veya enfeksiyona bağlı yaralanmaları sonucu yalancı veya psödoanevrizmalar oluşmaktadır. Ana femoral arterin delici yaralanmalarına bağlı psödoanevrizmalar yüksek insidanda olmasına rağmen^[1] derin femoral arterde (PFA) yalancı anevrizma oluşumu nadir görülen bir komplikasyon olup ortopedik cerrahi komplikasyonu olarak rapor edilmemiştir. Biz burada femur kırığı için uygulanan ortopedik cerrahi sırasında yerinden çıkan bir kemik parçacığının neden olduğu arter hasarına bağlı olarak yalancı PFA anevrizması gelişen bir olguyu sunmaktayız.

Anahtar sözcükler: psödoanevrizma, derin femoral arter, femur kırığı

False or pseudoaneurysm formation usually occurs after traumatic, iatrogenic or infective injury to the arterial wall. Despite the high incidence of pseudoaneurysm formation secondary to puncture injury to the common femoral artery^[1] false aneurysm formation of the profunda femoris artery (PFA) is a rare complication and has not been previously reported as a complication of orthopaedic surgery. We present a patient who developed a false aneurysm of the PFA secondary to arterial damage caused by a bone fragment dislodged during orthopaedic surgery for fracture of the femur.

Key words: pseudoaneurysm, deep femoral artery, fracture of the femur

CASE REPORT

An 82 year old woman was admitted after a fall, to hospital for treatment of a left intertrochanteric fracture of the left femur. Within twenty-four hours of the injury the patient underwent a dynamic hip screw osteosynthesis.

On the sixth postoperative day, the patient developed a painful swollen left leg with all the clinical hallmarks (swelling, pain, erythema and heat) of an iliofemoral deep vein thrombosis. The patient was referred to the medical team for investigation and treatment of a suspect deep vein thrombosis (DVT). A colour duplex ultrasound did not show any evidence of DVT, but a 2.1x 2.9 cm pseudoaneurysm of the PFA was demonstrated. Active arterial haemorrhage accompanied by a significant acute anaemia (7.8 g/dl) led to an urgent referral of the patient to the vascular team. The posterior anatomical relationship of the pseudo aneurysm to the PFA meant that conservative compressi-

on treatment or radiological direct thrombin injection direct thrombin injection under radiological guidance was not possible. The vascular team performed surgery via a medial femoral approach to achieve adequate access to the posterior aspect of the PFA. A false aneurysm of the PFA with a surrounding haematoma was found originating from a posterior PFA defect containing a displaced sharp fragment of a bone originating from the femur. The common femoral and superficial femoral artery remained intact. Under proximal and distal arterial control, the false aneurysm was incised and the vessel defect was repaired with 5/0 Prolene. Arterial continuity was fully restored.

The postoperative course was uncomplicated and no symptoms of left lower limb ischaemia developed (claudication or rest pain). The patient's thigh swelling resolved rapidly one week after Surgery surgery.

DISCUSSION

Various authors have reported the development of

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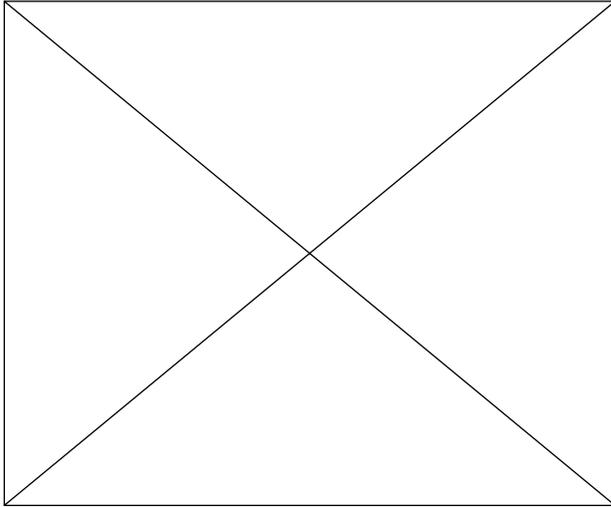


Figure 1. Case report

false aneurysms of the superficial femoral artery after mid-shaft fractures of the femur. ^[2]

Aneurysms of the DFA are rare in their true form, secondary to atherosclerosis or autoimmune disorders, however false aneurysms deep femoral artery or its branches occur very rarely. ^[3] False aneurysms of PFA secondary to femoral fracture surgery have not been previously reported. In our case report we describe a rare complication of orthopaedic hip surgery that should be kept in mind when displacement of bone fragments is suspected. Surgical repair of femoral false aneurysm carries significant risk of morbidity and mortality in elderly patients. ^[4] In general femoral pseudoaneurysms are observed more frequently nowadays due to the increasing use of interventional vascular techniques performed via femoral arterial access. This is particularly evident in patients undergoing coronary angiograms with concomitant anticoagulation and the use of large diameter sheaths. False aneurysms can develop from leaking anastomotic suture line following arterial graft reconstructions. The wall of the the aneurysm usually consists of hematoma compressed by the arterial pulsations, occasionally layer of the arterial wall persists and with time fibrous tissue develops within the wall of the aneurysm. False aneurysms compress surrounding tissues causing a mass effect. However venous structures and skin are usually compromised in this situation leaving nearby arteries intact, which explains the rarity of distal ischemia Significant morbidity can be caused by haemorrhage into surrounding tissues or through a breakdown in the overlying skin. Treatment options for pseudoaneurysms

include conservative, radiological and surgical interventions. Spontaneous thrombosis may occur in small false aneurysms, usually less than two centimetres in diameter.

Surgical repair of the arterial defect was the conventional treatment of a large pseudoaneurysm. However in recent years, minimally invasive interventional modalities have been developed that involve the percutaneous intra-aneurysmal injection of thrombin to facilitate coagulation and resolution. ^[5] Other radiological techniques include ultrasound-guided oblitative compression, embolization, and wall-stent insertion to into the native artery. ^[6]

In our patient, although the false aneurysm was small, surgery was preferred because of clinical deterioration and difficult access to the pseudoaneurysm for invasive radiological interventions. The iatrogenic development of a false aneurysm in the PFA is an interesting and unusual clinical scenario that can easily be mistaken for an iliofemoral DVT after hip surgery

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