



PSEUDOANEURYSM OF THE SUPERFICIAL FEMORAL ARTERY;

FOLLOWING OF THE FRACTURE SHAFT OF FEMUR WITH CONDYLAR BUTTRESS PLATE

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ABSTRACT... The case report is of a 30-year male patient who had a fracture shaft of femur and after open reduction and internal fixation developed swelling which was painful and was present on the medial aspect of the thigh. It was decided to do an angiogram as the swelling was expansile and confirmed superficial femoral artery pseudo aneurysm and the reason was thought to be over penetration of the bit of the drill while doing the surgery for shaft of femur fracture. Treatment decided by the multidisciplinary team was to remove the condylar buttress plate, resection of the aneurysm and repair of the aneurysm with inter-positional graft.

Key words: Fracture shaft of femur, male patient, swelling, resection of aneurysm, inter-positional graft, Condylar Buttress plate femur

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INTRODUCTION

Superficial femoral artery aneurysms are associated with mostly trauma.

However various other causes have been found like immunological and connective tissue disorders, infections and inflammations⁵. Various pseudoaneurysms in the femoral artery have been described in thigh and have some history of trauma or surgical procedure⁶. The case reported is of a man who developed aneurysm of the superficial femoral artery after open reduction and internal fixation of fracture shaft of femur.

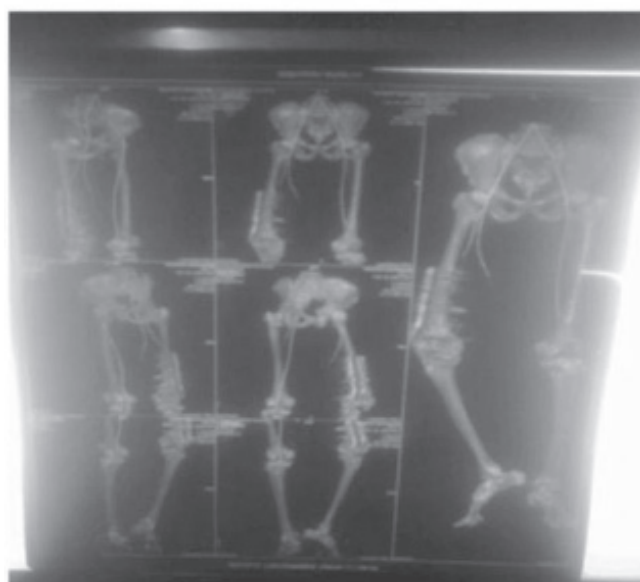
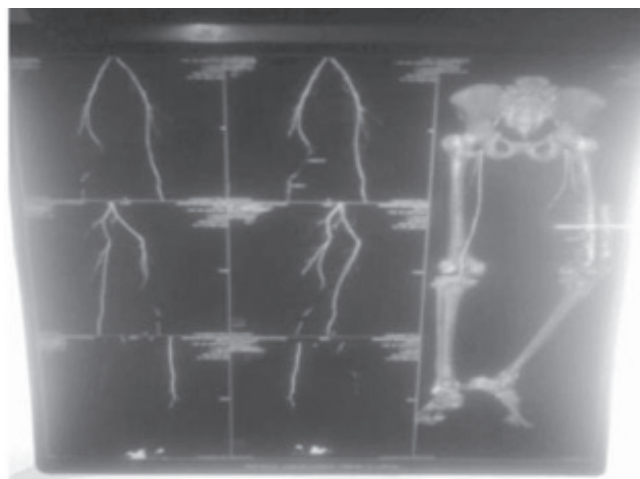
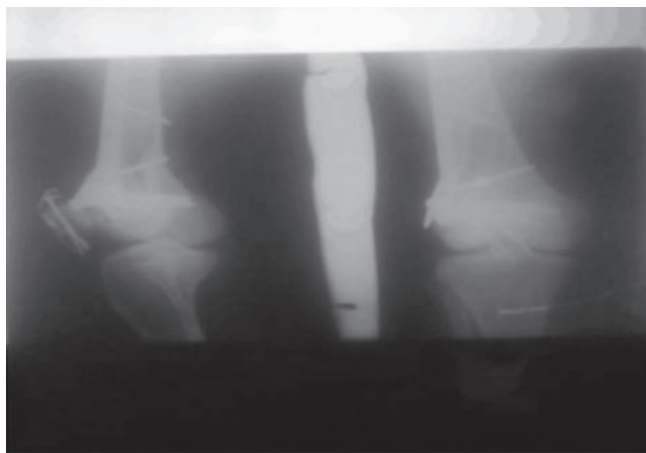
CASE REPORT

A 30 years male presented with swelling left thigh, Pain associated on and off left thigh and had no other associated symptoms after fixation of fracture shaft of femur for which Condylar buttress plate femur was done.

He later presented after 3 months with swollen left thigh more on distal 1/3rd of thigh. Signs and symptoms of inflammation were negative, swelling non pulsatile, distal pulses were nerves are intact. It was observed that the fracture had not united and limb had some limb length discrepancy and external rotation but the deformity was not severe.

Patient had stable vitals the patient's vital signs were stable. It was planned to do an angiogram and the result showed right superficial femoral artery pseudo aneurysm. Multidisciplinary approach was adopted and plate was removed followed by repair of the aneurysm by vascular team. Intraoperatively the tear was identified and in the distal screw.

The involved segment of the superficial artery was removed and autogenous vein graft was put in with end-to-end anastomosis. During surgery bone showed good healing at the fracture and slight rotation medially of the distal segment. It was decided to remove the condylar buttress plate femur. The pathology report was normal. Later on patient was discharged with good distal flow and normal neurovascular examination. Regular follow up were done and patient showed good recovery with active range of motion of all joints of the limb. The patient had good hip and knee motion and showed unremarkable recovery. The shortening cause no functional disability to the patient.



DISCUSSION

Aneurysms of the superficial femoral artery are rare. Various orthopedic procedures have showed pseudo aneurysm development after open reduction and internal fixation^{3,5,9} ultrasound-guided thrombin injection has become a treatment option. During injection of thrombin into a pseudo aneurysm, immediate thrombosis can be demonstrated within seconds. The entire procedure can be accomplished within 5 minutes, is simple to learn, and can be performed safely on an outpatient basis¹.

The most frequent site of anastomotic false aneurysm formation is the femoral artery. Aneurysms can be repaired by Dacron arterial grafting saphenous vein grafting umbilical vein, grafting and femoral embolectomy^{2,7,8}. Current available evidence from the literature supports the feasibility and the safety of percutaneous

endovascular aneurysm repair (PEVAR); however, predictors of success are not well defined⁴. Ultrasound-guided thrombin injections have replaced ultrasound-guided compression as the first-line treatment¹⁰. Awareness of pseudo aneurysm formation and the treatment options allows prompt diagnosis and successful treatment¹⁰. In our patient surgical repair was done with saphenous vein graft due to non availability of intervention procedures for superficial femoral artery^{5, 10}. In a similar study done results showed pseudo aneurysm of the superficial femoral artery¹¹. Shaft of femur fractures can be operated with different options but it is best to decide the treatment according to economic and local factors with the patient care as the focus. If proper attention is paid during operative surgery

complications like pseudo aneurysms can be avoided.

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When you have to kill a man,
it costs nothing to be polite.

Sir Winston Churchill (1874-1965)

