related factors.

PP 6

Delayed presentation of superficial femoral artery (SFA) pseudoaneurysm three month following trauma - a rare case.

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Introduction A pseudoaneurysm or a false aneurysm is a collection of blood leaking from damaged arterial wall. It can follow trauma, iatrogenic injuries or infections.

Case presentation A 22-year-old young healthy farmer sustained an open left distal femur fracture after a motor traffic accident. He was initially managed with external fixation. He presented three months later with a painful progressively enlarging lump on the anteromedial aspect of the left thigh. The CT angiogram showed a pseudoaneurysm of the distal SFA measuring 4.3 X 3.9 cm with an aneurysmal neck of 0.2 cm. The aneurysm was located 20 cm distal to the origin of the artery. Open surgical repair of the aneurysm was done. Postoperatively, the distal pulses were present with good perfusion of the foot. He had an uneventful recovery except for a superficial wound infection.

Discussion Delayed presentation of post-traumatic pseudoaneurysms of SFA is rare. The postulated mechanisms were injury to the arterial wall by fractured edges of bone before or after fixation, concussion due to high-velocity projectile gunshot injuries or mortar fragment injuries and penetrating trauma causing direct injury to the artery. In this case, the possible mechanism of injury would be the high-velocity trauma that caused the distal femur fracture or the jagged edges before fixation.

The published literature reports a delay ranging from two weeks to 54 years. The delay in the diagnosis can be due to the absence of hard and soft signs of vascular injury during the initial presentation. Another reason for the delay might be the small size of the arterial defect (2 mm) and its anatomical location deep in the adductor canal.

Different surgical and non-surgical modalities have been used in the management of pseudoaneurysms. Different options may vary from conservative management, ultrasound-guided compression, percutaneous ultrasound-guided thrombin injection, endovascular coil embolization, covered stent placement and open surgical repair with or without venous patch angioplasty. Venous patch repair was not offered as the arterial defect was only 2 mm.

The indication for arteriography following trauma to diagnose the presence of any occult arterial injury is unclear and is not indicated in the absence of physical signs of vascular injury.

Conclusion Delayed presentation of pseudoaneurysm following trauma is a rare complication and should be kept in mind in dealing with swellings of the traumatic site even after years.