Pseudoaneurysm of the peroneal artery after plate fixation of lateral malleolus fracture: A case report

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Introduction
- Pseudoaneurysm is a rare complication reported after any surgery such as ORIF of fracture, plate removal, ankle or knee arthroscopy or arthroplasty.
- To our knowledge, pseudoaneurysm of the peroneal artery after plate fixation is a rare phenomenon.
- We report a case of a 66-year-old male patient who had pseudoaneurysm of peroneal artery following plate fixation.

Case
1) Brief history
- A 66-year-old male was referred to our outpatient clinic because of a pulsating mass with bruit at the operation site in his left ankle.
- He had a history of falling accident and left isolated fibula fracture 2 months ago that was treated by open reduction and internal fixation with LCP plate.
- After the surgery, the patient had complaints of pulsating mass and bruit.

2) Physical findings
- Tenting on the dorsum of Proximal interphalangeal joint of left second toe
- Limitation of PIP joint movement with pain

3) Radiographic findings
- Pre Op / Post Op
- CT lower extremity vein 3D
- Duplex lower extremity artery

4) Percutaneous sclerotherapy / Embolization

5) Post Embolization

6) Results
- At 2 months postoperatively, union was confirmed by X-ray. The patient was satisfied without pain

Discussion
- Pseudoaneurysms of the arteries around the ankle are a rare complication.
- A major predisposing factor of the condition is typically low energy trauma.
- Reviewing the English medical data revealed 8 cases of pseudoaneurysms associated with the perforating branches of the peroneal artery.
- Postoperative pseudoaneurysms of the perforating branches of the peroneal artery after fixation of an ankle fracture have been reported in only 2 cases.
- In this case, pseudoaneurysm was diagnosed at two months after surgery.
- And then, it was treated with a vascular surgeon using coil embolization without any difficulty.
- The surgeon should be suspicious to this complication following immediate or late postoperative or postmobilization swelling.

References
1. Ilia Alexandros I, Kosmidis, Maria Flokatoula Pseudoaneurysm of the Perforating Peroneal Artery After Ankle Fracture Fixation: Case Report and Review of the Literature The Journal of Foot & Ankle Surgery 55 (2016) 1083–1086