Post-traumatic Pseudoaneurysm of the Medial Plantar Artery combined with Tarsal Tunnel Syndrome

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My disclosure is in the Final AOFAS Mobile App. I have no potential conflicts with this presentation.
INTRODUCTION

• The causes of pseudoaneurysms in adults
  - arterial-graft anastomotic sites
  - iatrogenic injury during arterial catheterization
• Post-traumatic pseudoaneurysm is a relatively rare phenomenon
• Post-traumatic pseudoaneurysms of the lower extremity after penetrating or blunt trauma have been documented.
INTRODUCTION

- Pseudoaneurysms in the foot are more often reported in the lateral plantar artery than the medial plantar artery, most likely because of its more superficial location.
- There are no reports of pseudoaneurysm of the medial plantar artery after trauma.
- We present two cases of pseudoaneurysm of the medial plantar artery after blunt foot trauma.
CASE I

At Emergency Room

- M/70
- Motorcycle TA
- Pain & Abrasion wound of Rt. foot medial side
- Minimally displaced medial cuneiform fx.
- short leg splint & discharged after wound care
1 month later at OPD

• Foot medial side pulsatile mass & sole tingling sensation
• MRI showed a 3.8 x 2.8 x 3.2 sized well-defined dark signal intensity mass seen in the medial foot area
• We suspect an from the medial tibial artery
Angiography

• Angiography was performed to locate the vessel exactly and decide on the treatment strategy

• Pseudoaneurysm of medial plantar artery in a branch of the posterior tibial artery was diagnosed

• Coil embolization was performed because the collateral circulation of other foot site was intact

• Immediately after the procedure, the mass pulsing disappeared and the size reduced by half

• One month after the procedure, the mass and tingling sensation of sole were gone
CASE II

- M/45
- Laceration on the foot medial side after hitting glass
- Plain radiographs were non-specific
- The patient was considered a simple laceration at ER and OPD F/U after simple suture
2 weeks later at OPD

- Two weeks later, he complained of a pulsatile mass on the foot medial side and severe tingling sensation
- Angiography & Coil embolization was performed
CONCLUSION

• Pseudoaneurysm can be prevented after a laceration
  - the history includes notes of excessive bleeding compared to laceration, and meticulous wound exploration rather than compression and simple repair was performed at the foot laceration

• Nevertheless, if a pseudoaneurysm occurred, early diagnosis is important
CONCLUSION

• When symptoms occurred such as persistent pain and pulsatile mass, a pseudoaneurysm should be suspected.

• When treating a pseudoaneurysm in medial plantar artery combined with tarsal tunnel syndrome, we can treat by a minimally invasive procedure successfully without surgery.
Thank you for Your Attention