

Case Report : Isolated true aneurysm of the dorsal pedis artery.

A 48 years old man presented at our vascular department with a pulsatile mass on the left forefoot. According to the history this mass existed since 3-4 years and it was growing up. The patient is a construction worker and he must wear steel toe work shoes. There was no injury reported. Hypertension and obesity were the only cardiovascular risk factors of the patient.

The clinical examination showed a palpable painless pulsative aneurysm of the dorsal pedis artery. **(Picture 1)**. Signs of peripheral embolization or inflammation are not presented. The duplex ultrasound obtained an 1,7 x 1,2 cm partial thrombosed non arteriosclerotic aneurysm of the ADP with an normal triphasic velocity waveform. **(Picture 4, A)**

Because of the continued grow up of the aneurysm and the difficulty of the patient to wear normal sized shoes we suggested him the open aneurysm repair. We proceed to the operation after the patient consent. Any other vascular imaging wasn't necessary.

The preoperative blood test were normal and the duplex ultrasound of the ipsilateral distal great saphenous vein showed an open vein with a diameter of 3,5 mm.

We expose the aneurysm and the dorsal pedis artery through an incision on the dorsal foot midway between the extensor hallucis longus and the extensor hallucis brevis muscle. Then we continued with the vein harvest. **(Picture 2)** The aneurysm was completely resected and the artery reconstruction was made by an interposition vein graft (reversed) using end-to-end anastomosis with 7/0 suture. **(Picture 3)**

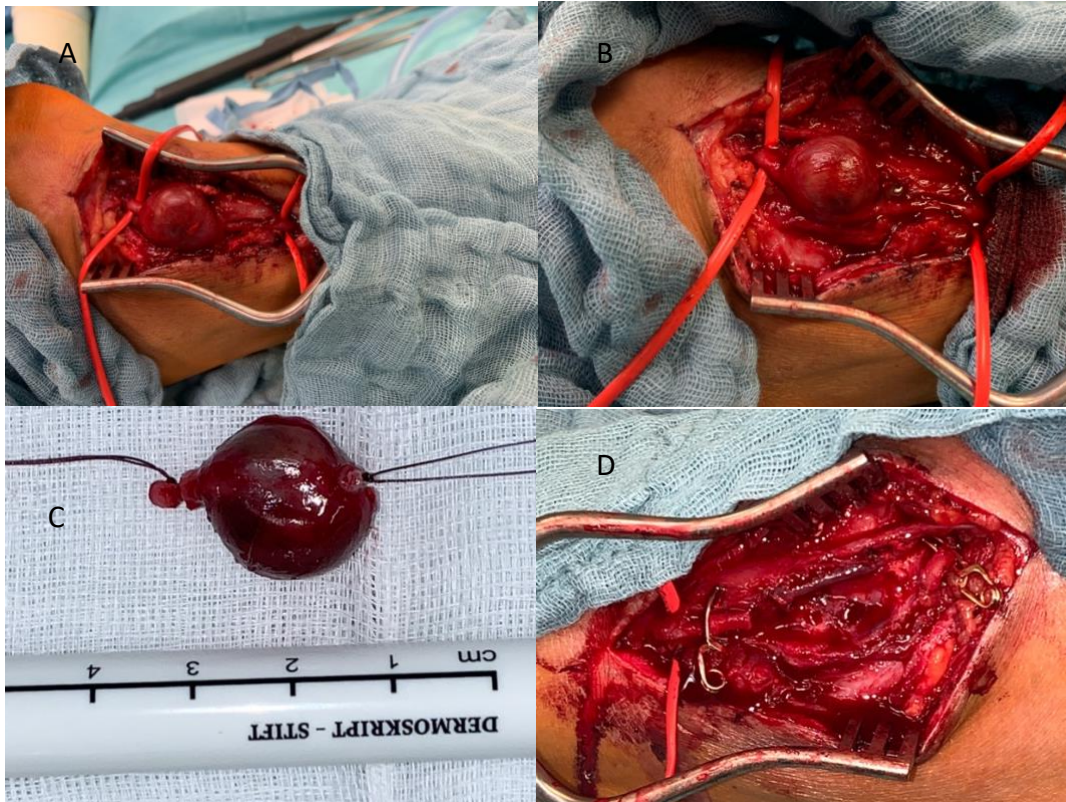
Nearby structures such as veins, nerves (deep peroneal nerve) and muscle tendons were respected. The histological examination showed a true aneurysm. There were no signs of inflammation.

The operative procedure remained uneventful. After a short period of observation in a recovery room, we were able to transfer the patient to our regular vascular surgical ward and there was no need of further intensive care or monitoring.

The patient was discharged on the 3th postoperative day. In 4week follow-up the patient had no complains, the wounds were healed and the interposition graft was open. The flow of the graft on the duplex ultrasound was 16ml/min. **(Picture 4)**



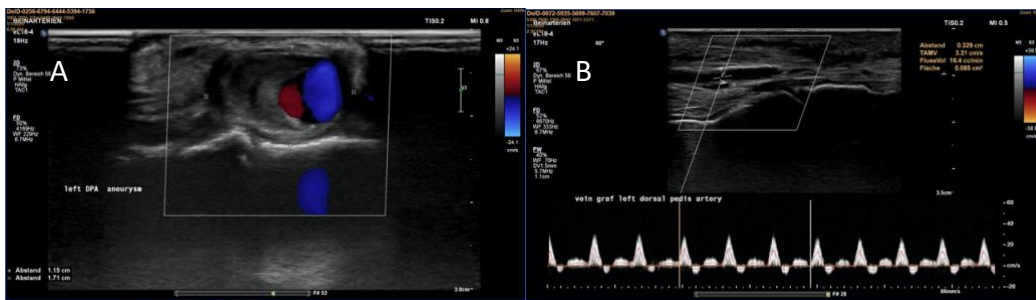
Picture 1: Preoperative plan, showing the mass on the forefoot and the GSV (A,B)



Picture 2: DPA-Aneurysm after exposure (A and B) , resected aneurysm (C), clamped distal and proximal part of the DPA after completely resection of the aneurysm. (D)



Picture 3: Exposure of the GSV (A). Reconstructed ADP with GSV interposition graft (B)



Picture 4: Preoperative duplex ultrasound showing the partial thrombosed DPA aneurysm (A). Follow-up duplex ultrasound obtained a triphasic waveform in the GSV interposition graft.(B)