

SIMULTANEOUS LOWER EXTREMITY DEFECT AND VASCULAR RECONSTRUCTIONS.

Wound Clinic, Latvia

M.Malzubris, Dz.Ozols, K.Snippe, E.Ozols, M.Timofejevs,
L.Repša, E.Deine, E.Gulbis, O.Libermanis

CHRONIC LOWER EXTREMITY WOUNDS

- × Atherosclerosis
- × Microangiopathy
- × Soft tissue scaring
- × Infection
- × Comorbidities

CHRONIC LOWER EXTREMITY WOUNDS

- × Exposed structures
 - + Tendons
 - + Joint
 - + Bone

POSSIBLE TREATMENT

- ✘ Amputation?
- ✘ Reconstruction?





INDICATIONS FOR RECONSTRUCTION

- × Bilateral disease
- × One leg amputation
- × Patients choice

LITERATURE REVIEW

- ✘ One stage v.s two stage reconstruction
- ✘ Free flaps – muscular or fasciocutaneous
- ✘ Bypass grafts
 - + Artery-artery graft, flap connects with reperfused artery
 - + Flap connects with graft side-to-end
 - + Flow-through flap

1. Atherosclerosis of the lower extremity and Free tissue reconstruction for limb salvage. J.M.Serletti, M.A.Deuber, Plast Rec.

2. Lower limb revascularization and free flap transfer for major ischemic tissue loss. [Tukiainen E](#), [Biancari F](#), [Lepäntalo M](#). World J Surg. 2000 Dec;24(12):1531-6

3. Combined revascularization and microvascular free tissue transfer for limb salvage: a six-year experience. [Quiñones-Baldrich WJ](#), [Kashyap VS](#), [Taw MB](#), Ann Vasc Surg. 2000 Mar;14(2):99-104.

LITERATURE REVIEW

- × Level of revascularisation
 - + Popliteal artery
 - + Infrapopliteal arteries
 - × Tibial
 - × Pedal
 - × Plantar

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RESULTS

- ✘ Leg salvage – 73-85% (12-36 months period)
- ✘ High complication rate
- ✘ Diabetes mellitus and renal failure association

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BYPASS GRAFT

- ✘ Length of the graft
- ✘ Inflow artery and re-exploration rate
 - + Major artery (femoral, popliteal, brachial) – 22.4%
 - + Minor artery (tibial ant., post, peroneal, thoracodorsal) – 43.4%

1..The clinical reliability of vein grafts in free-flap transfer. [Germann G, Steinau HJ](#)

Reconstr Microsurg. 1996 Jan;12(1):11-7

2. Lower limb revascularization and free flap transfer for major ischemic tissue loss. [Tukiainen E, Biancari F, Lepäntalo M.](#)

World J Surg. 2000 Dec;24(12):1531-6

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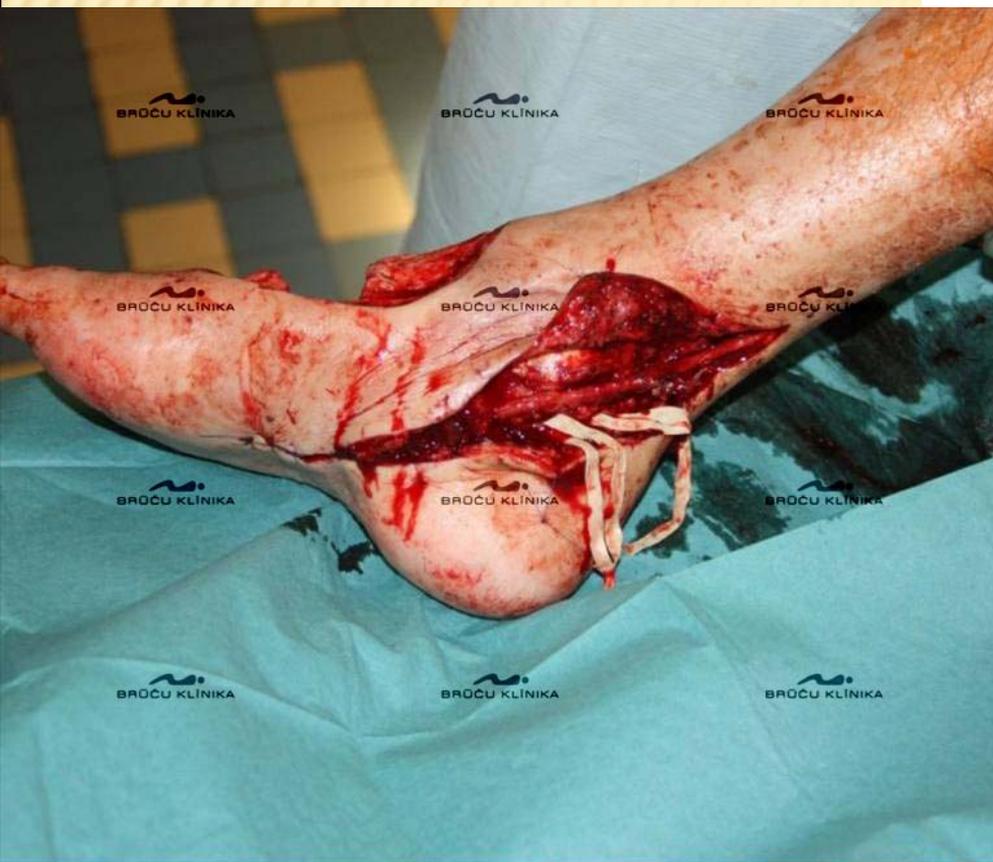
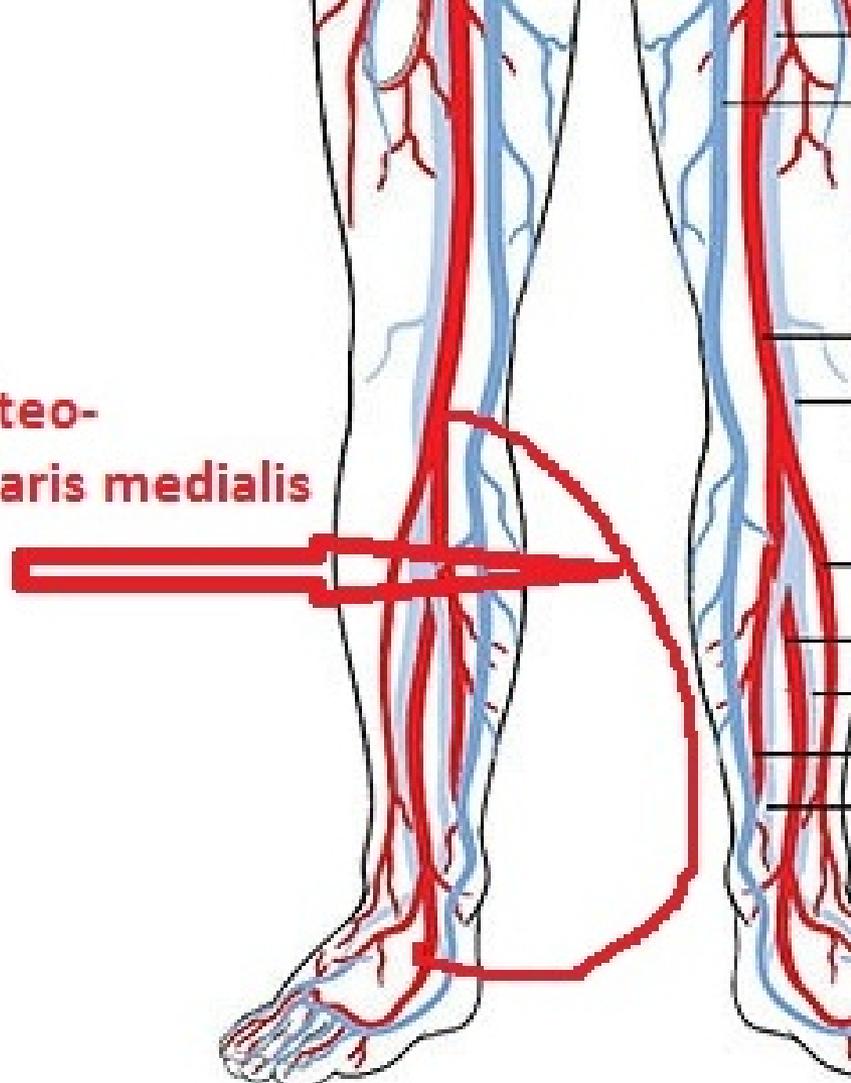


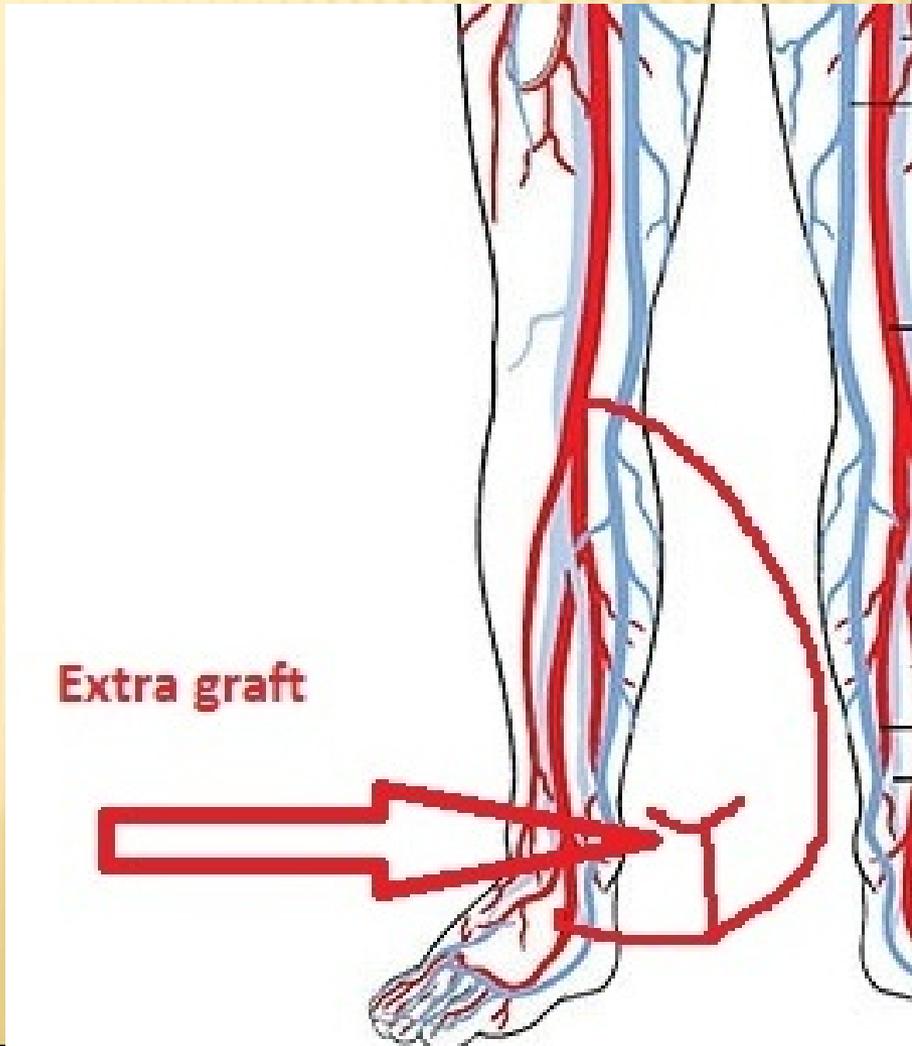
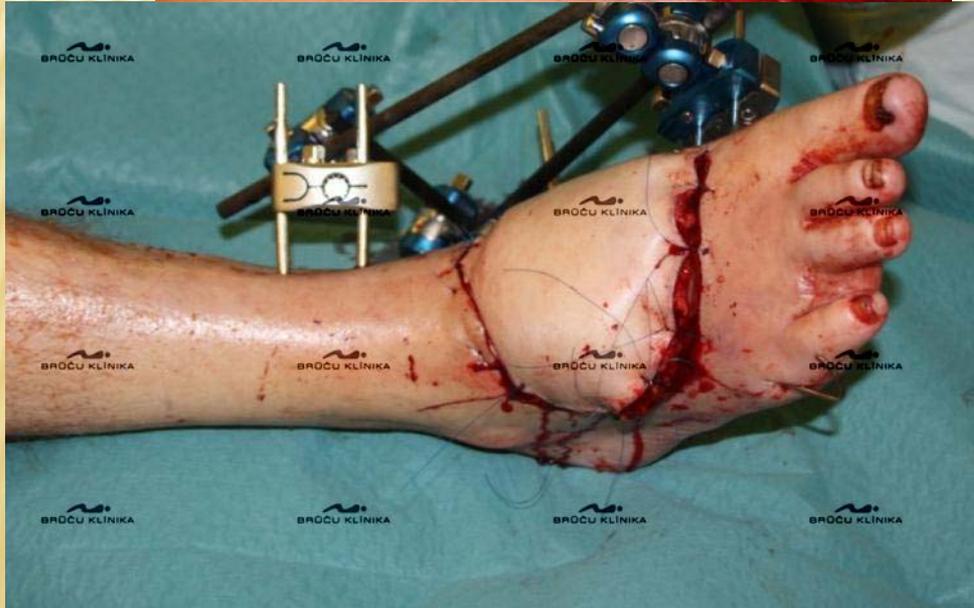
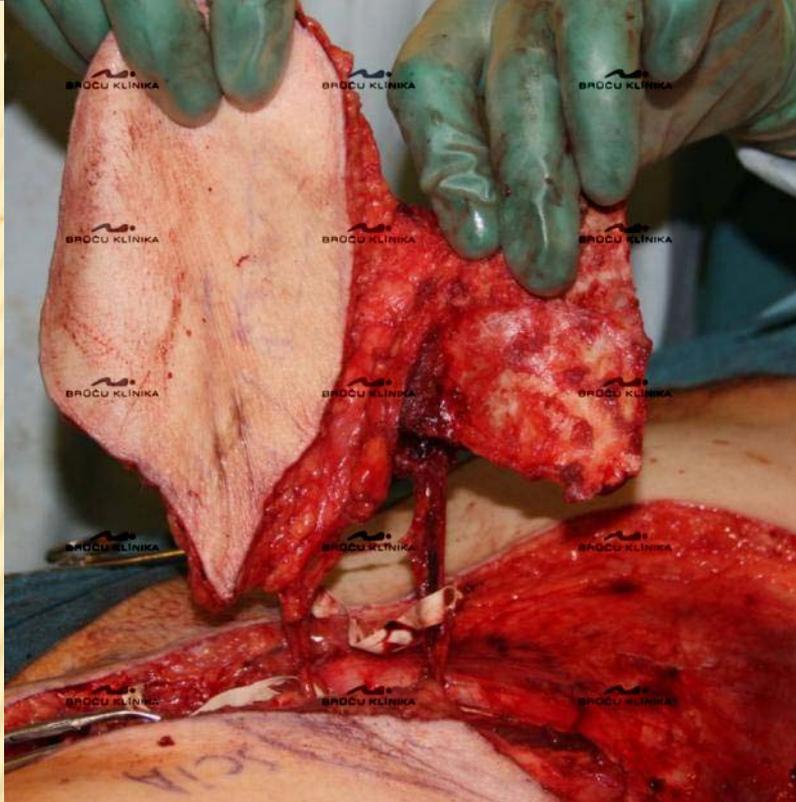
30-Apr-2010 3/38 F [45]





Popliteo-plantaris medialis





- kir

SC:76%

DEX

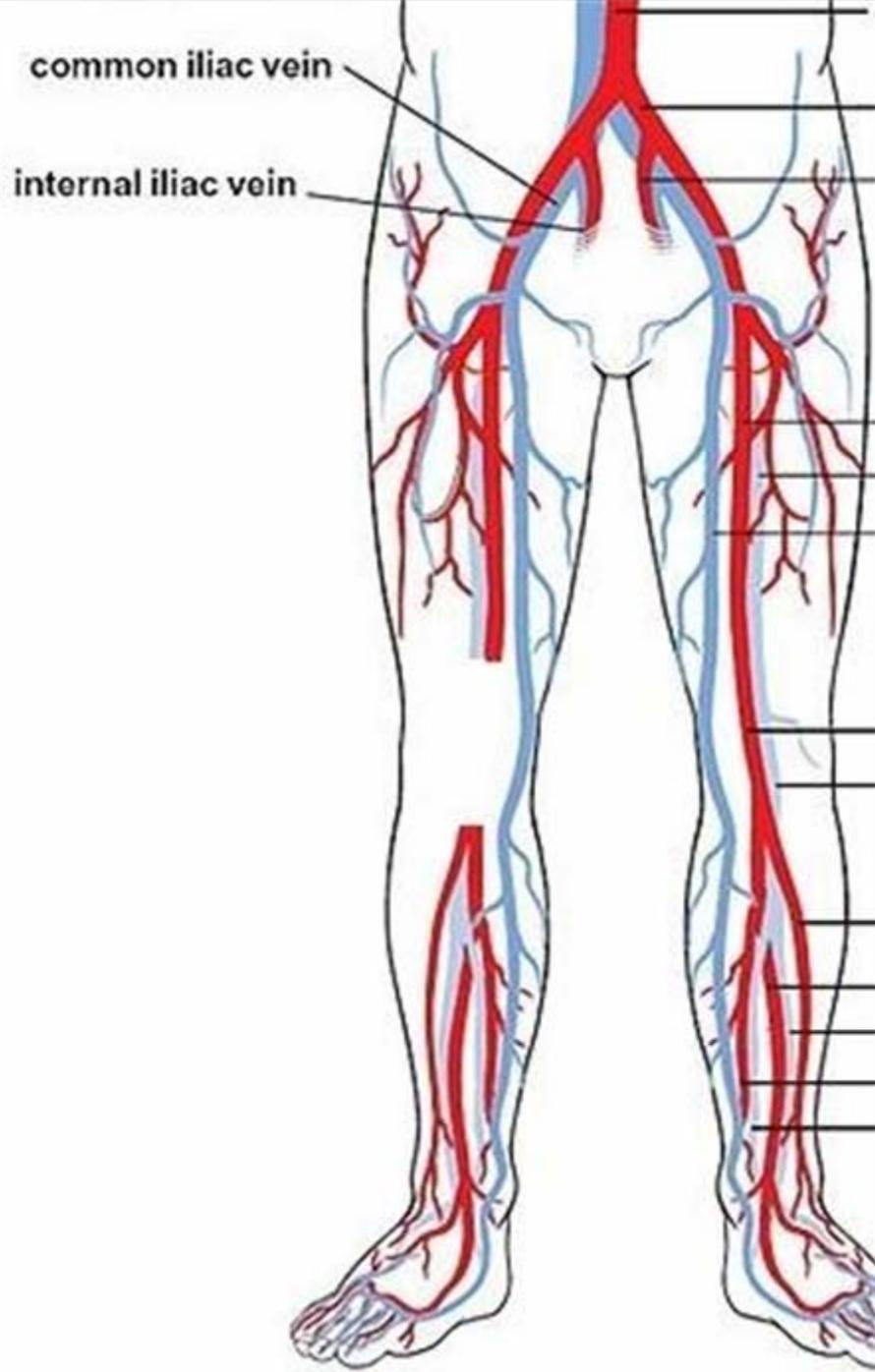
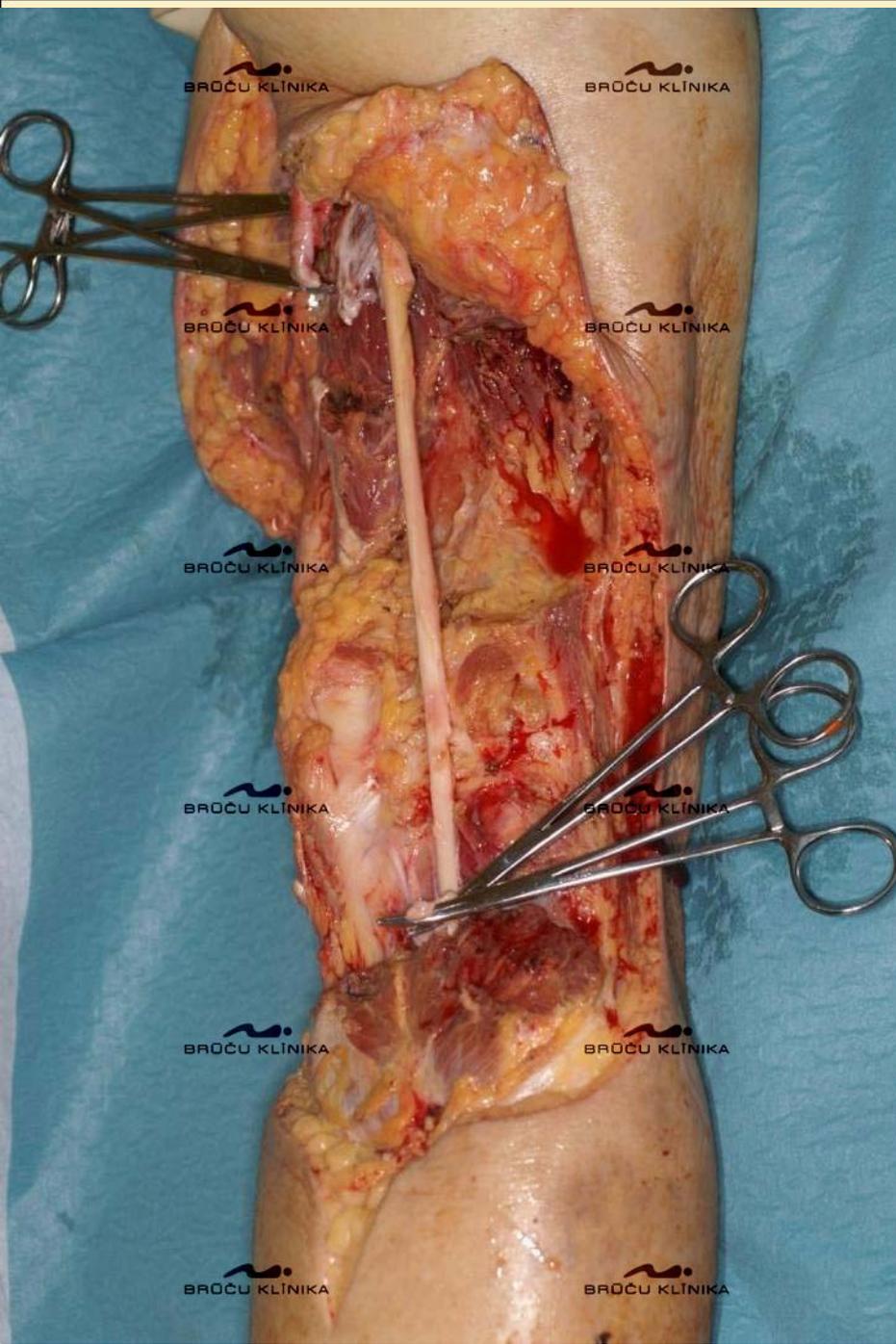


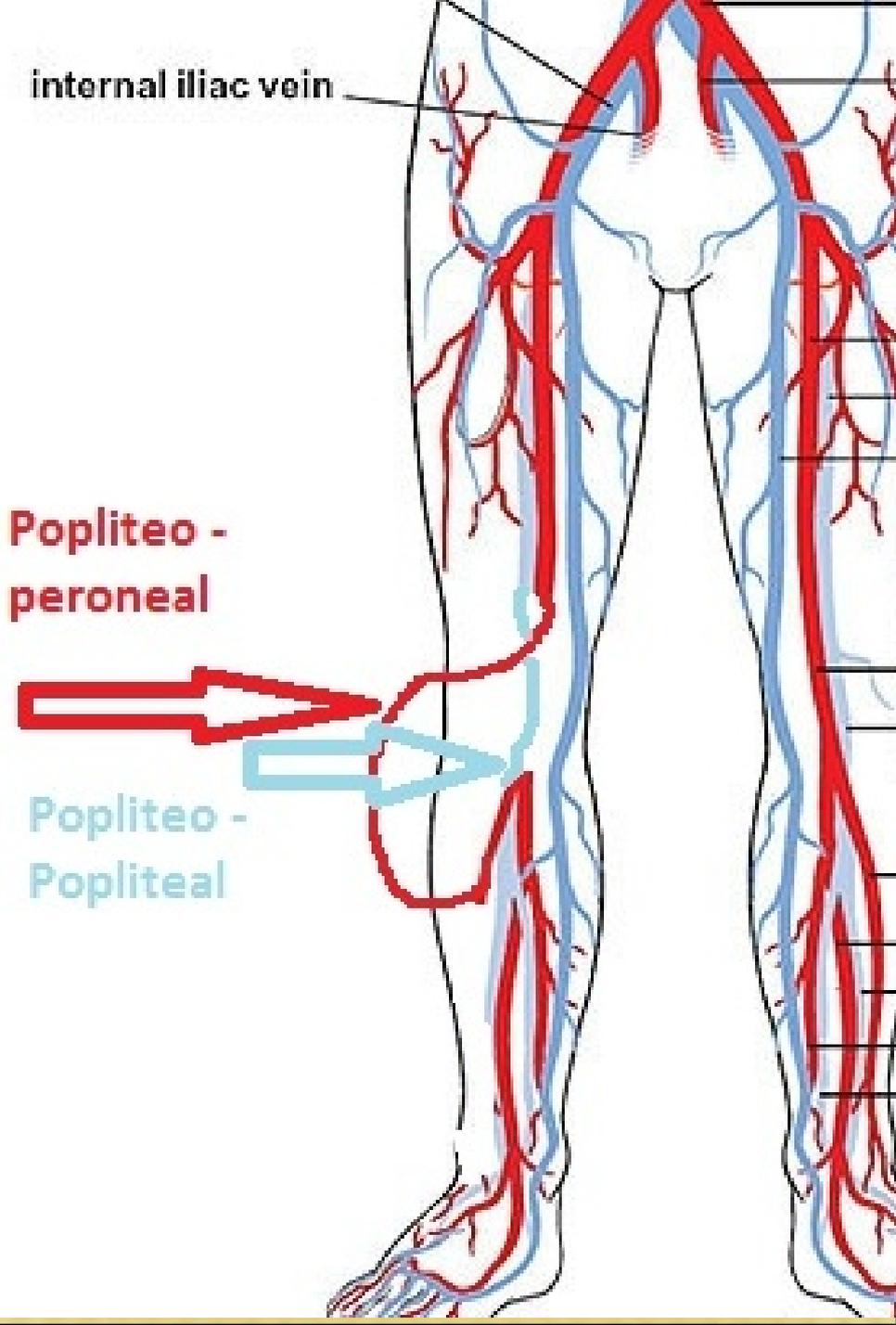
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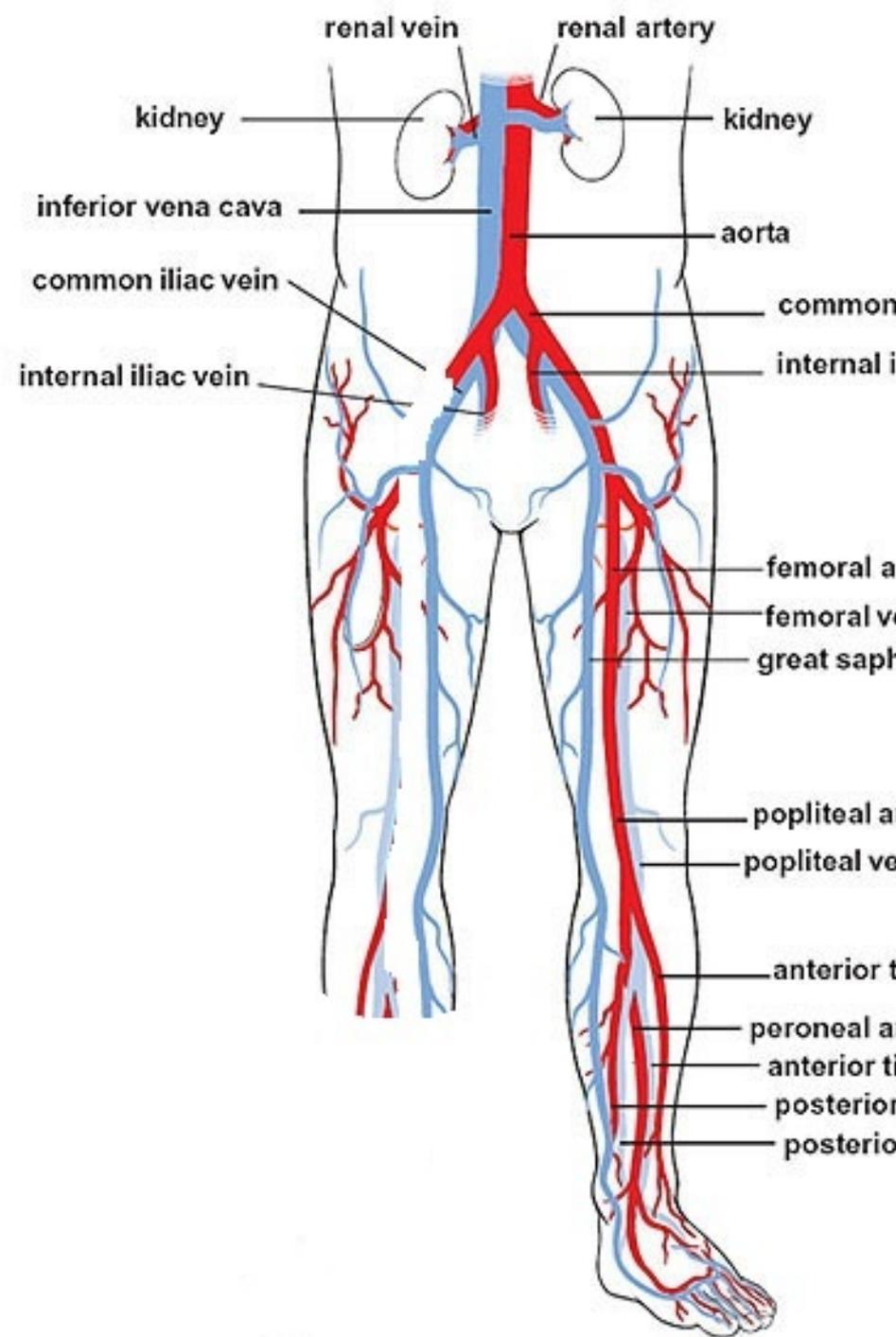
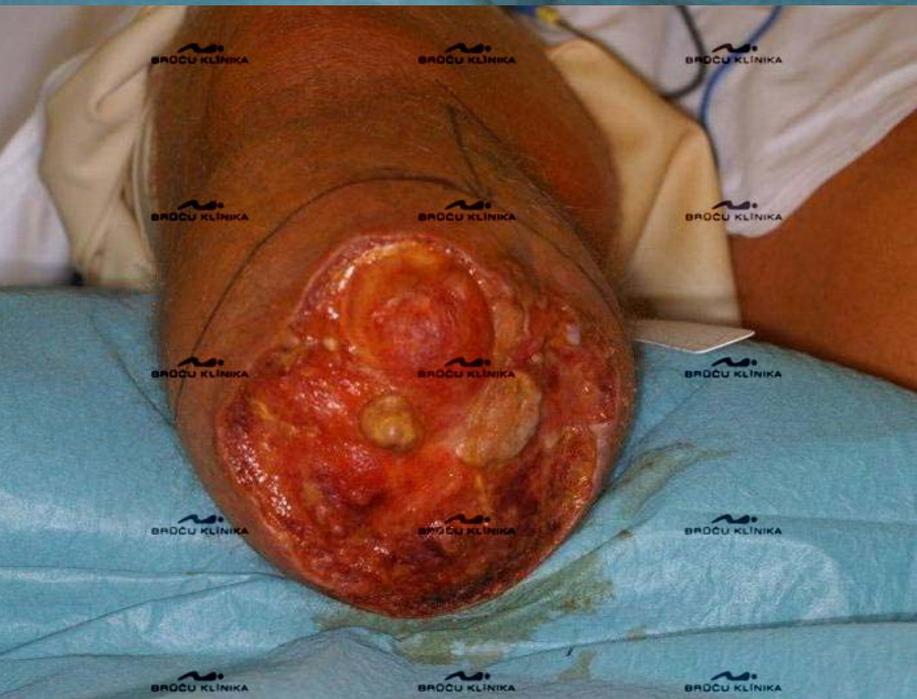
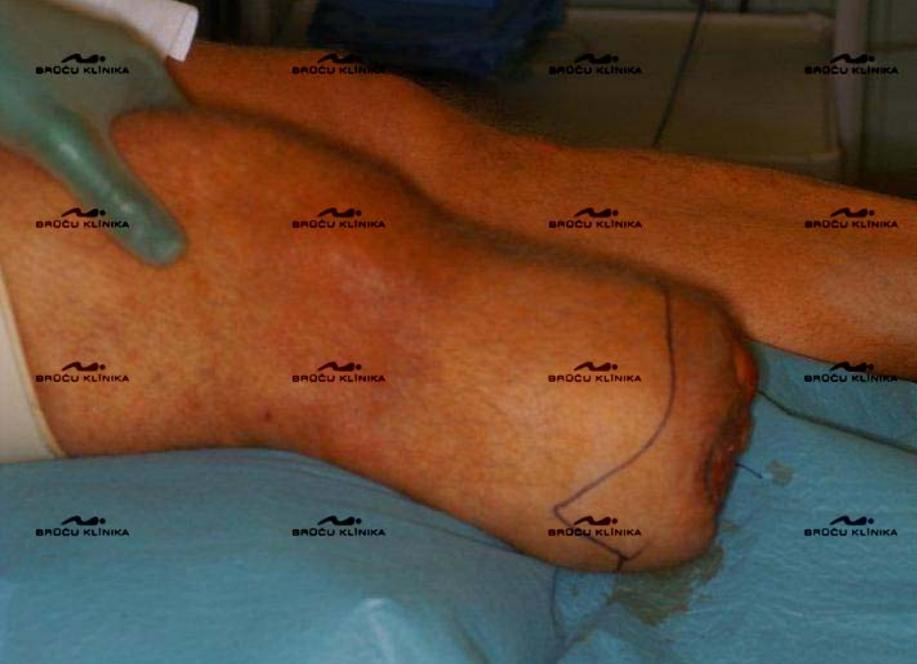


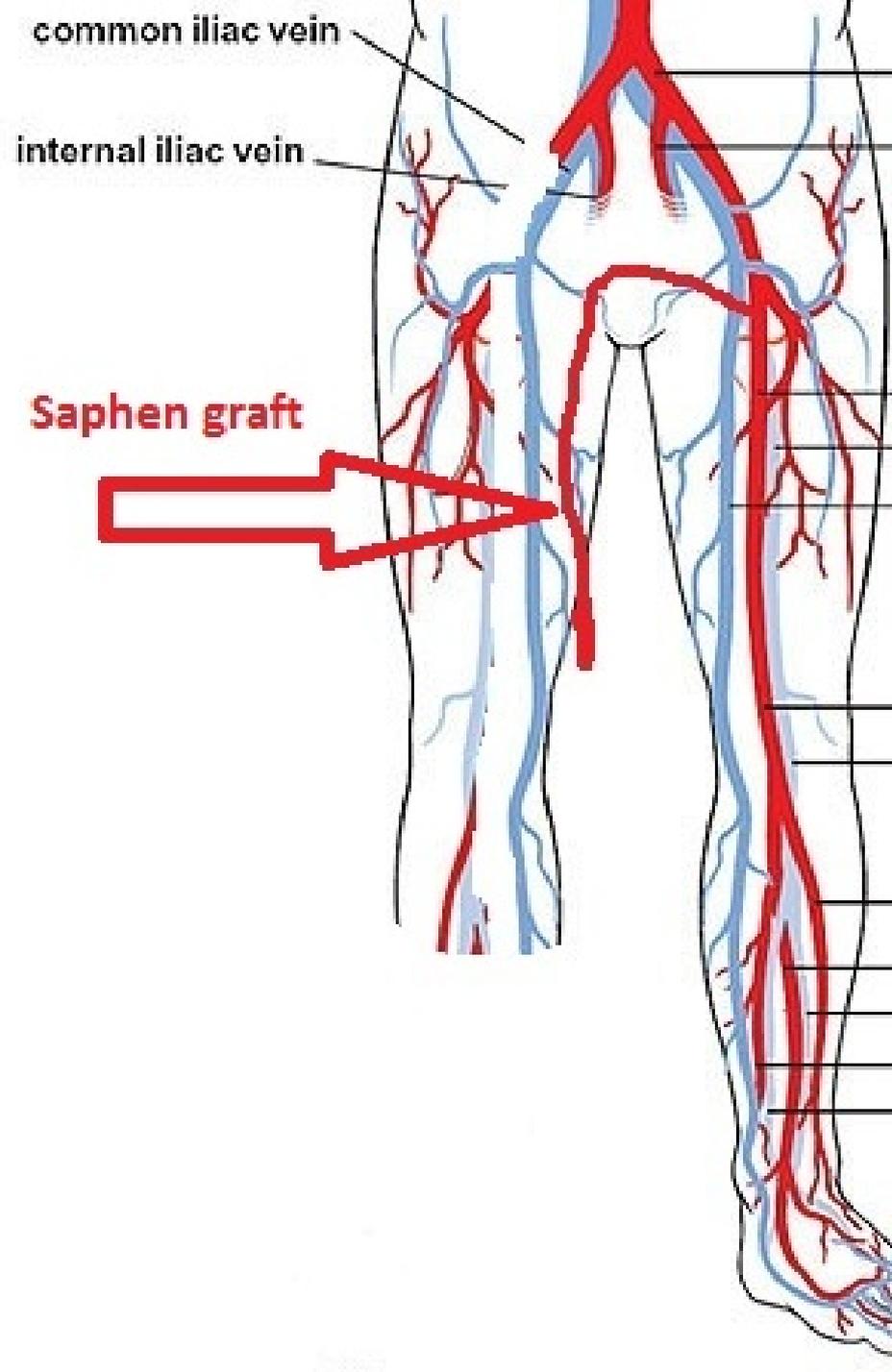


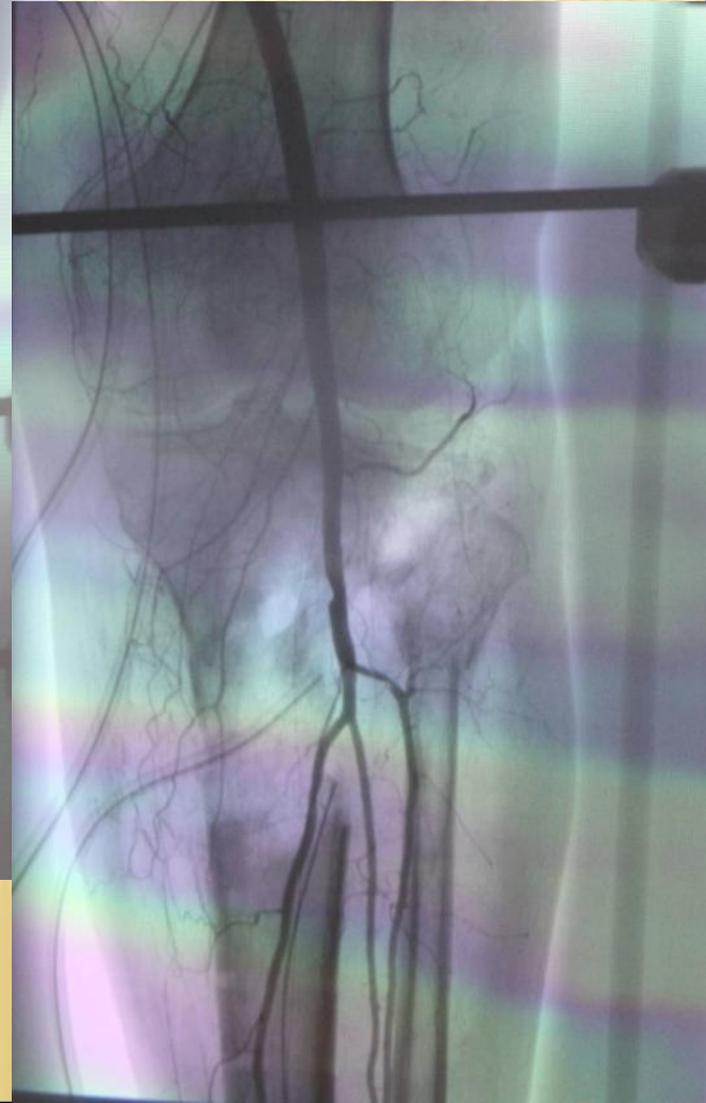
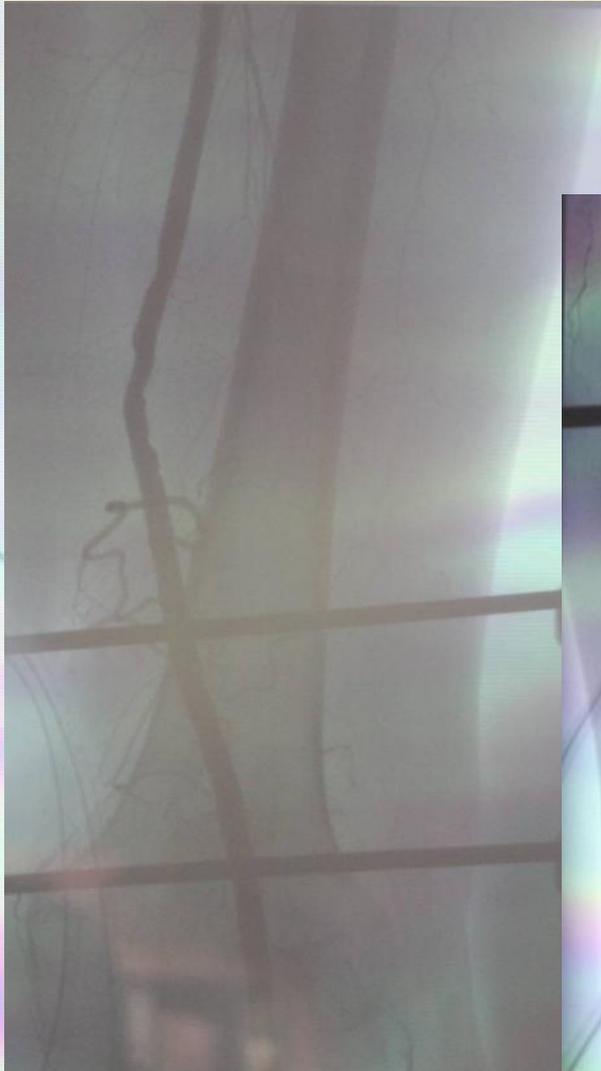
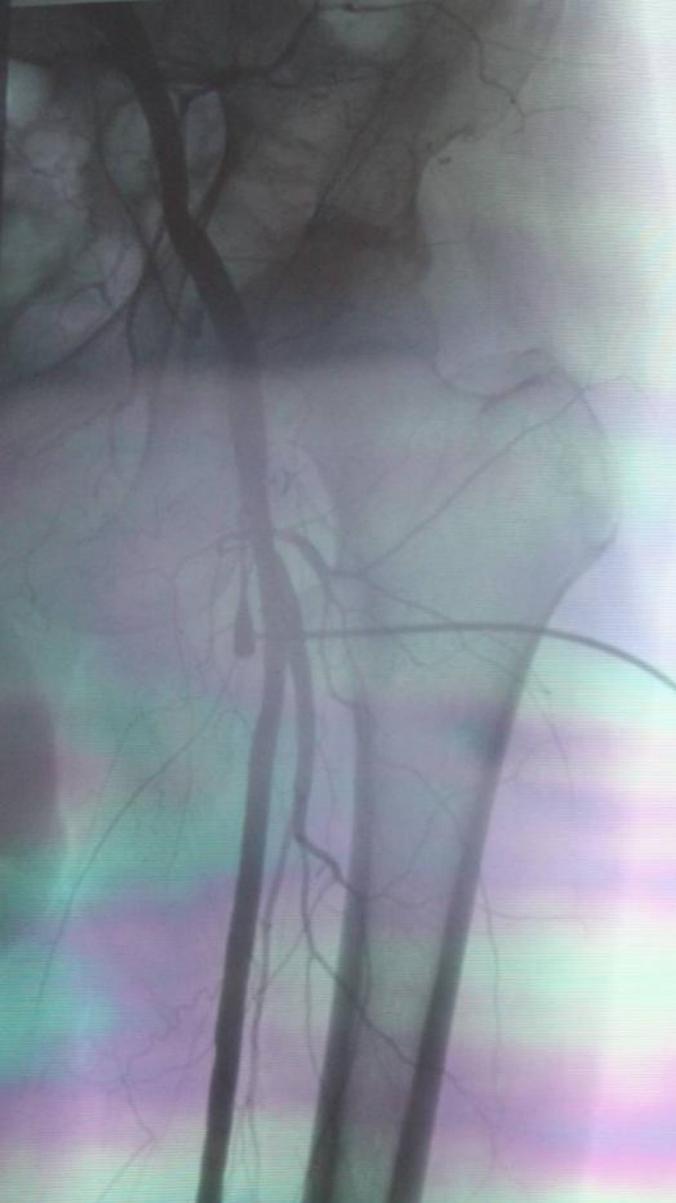


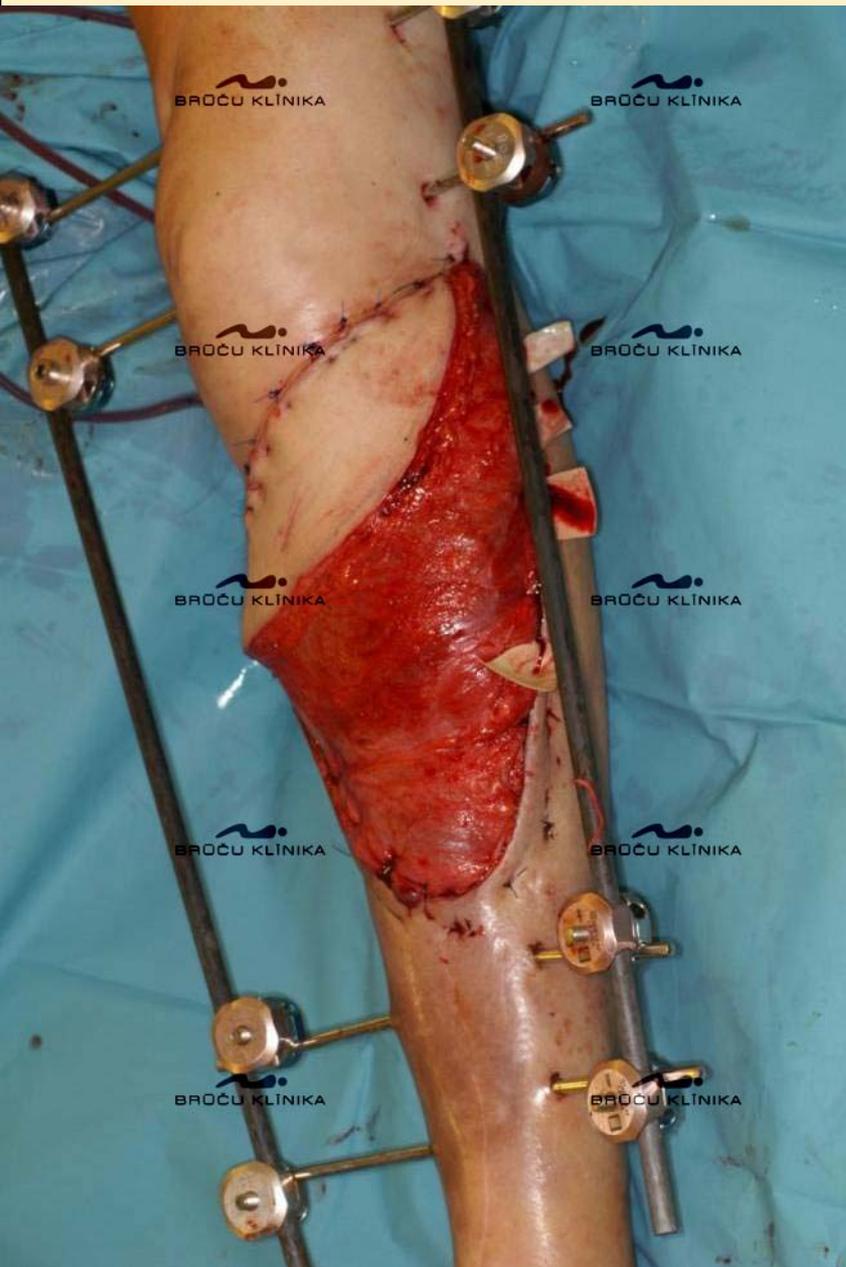








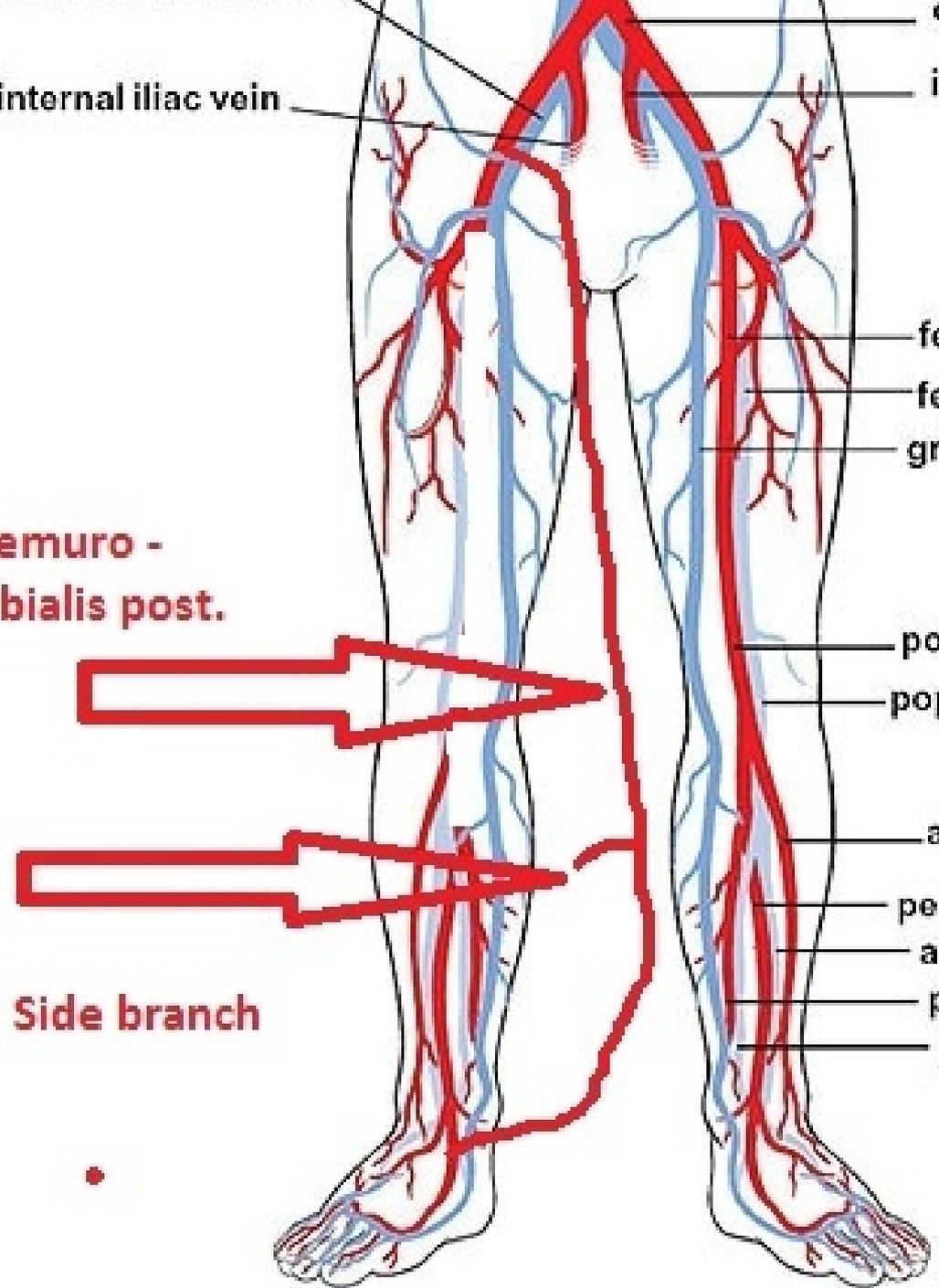


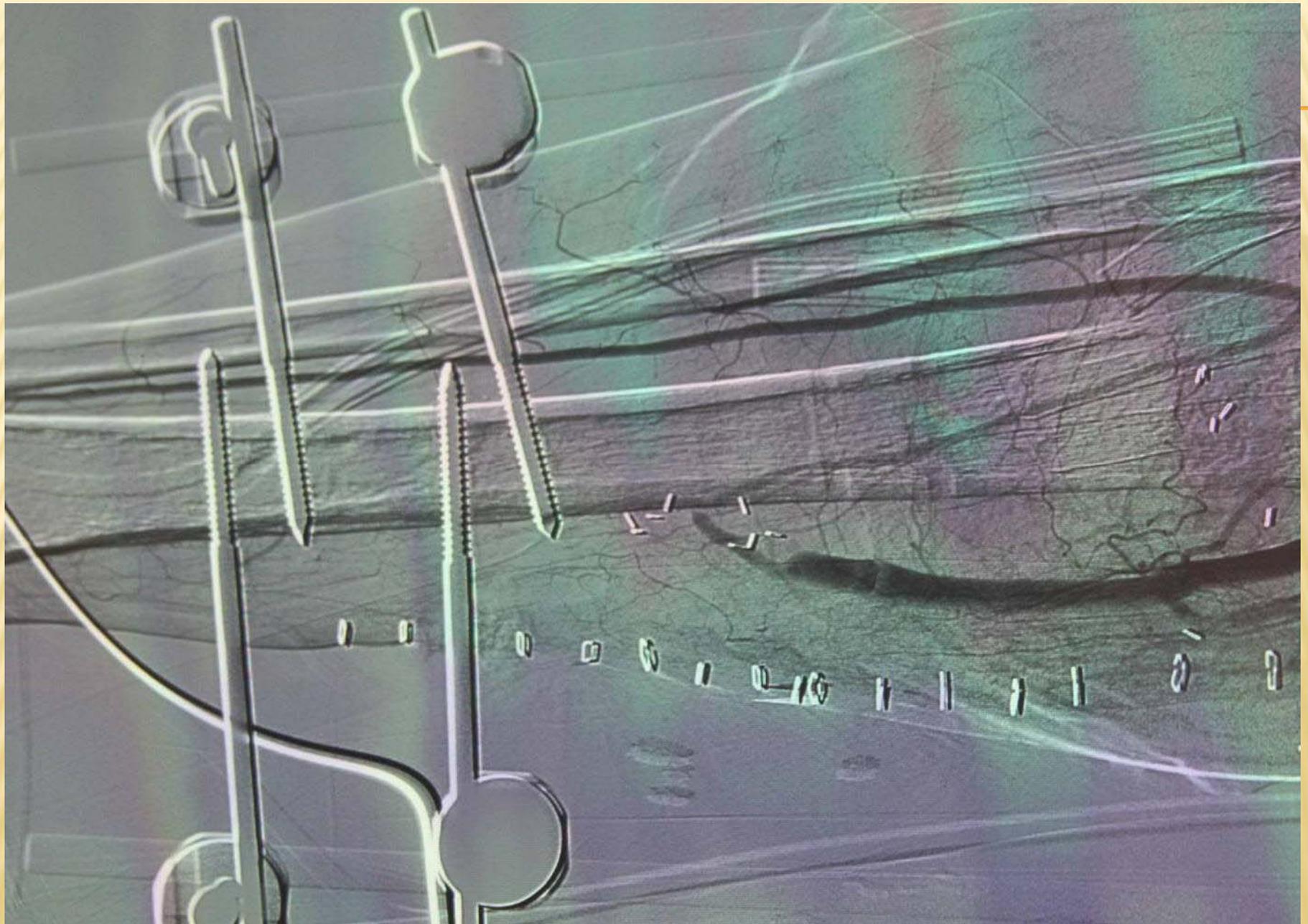


internal iliac vein

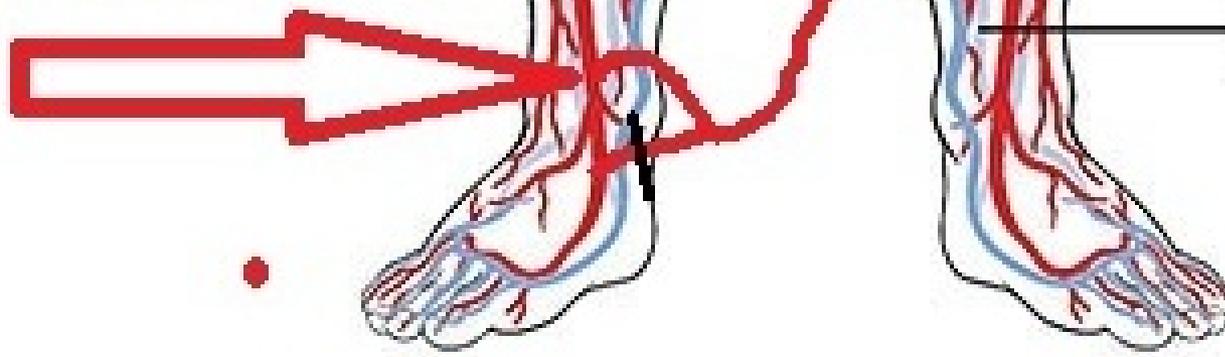
Femuro -
tibialis post.

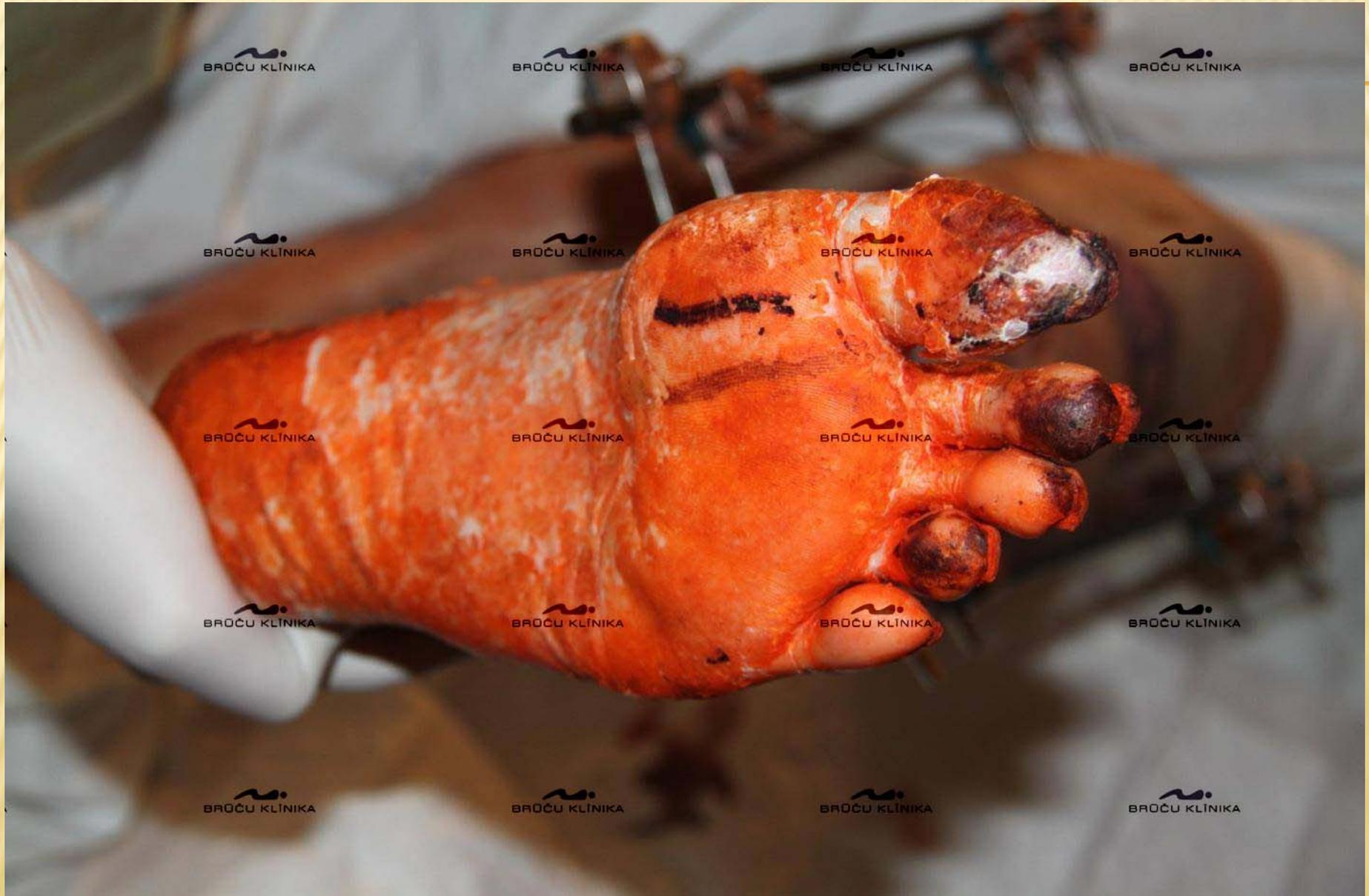
Side branch





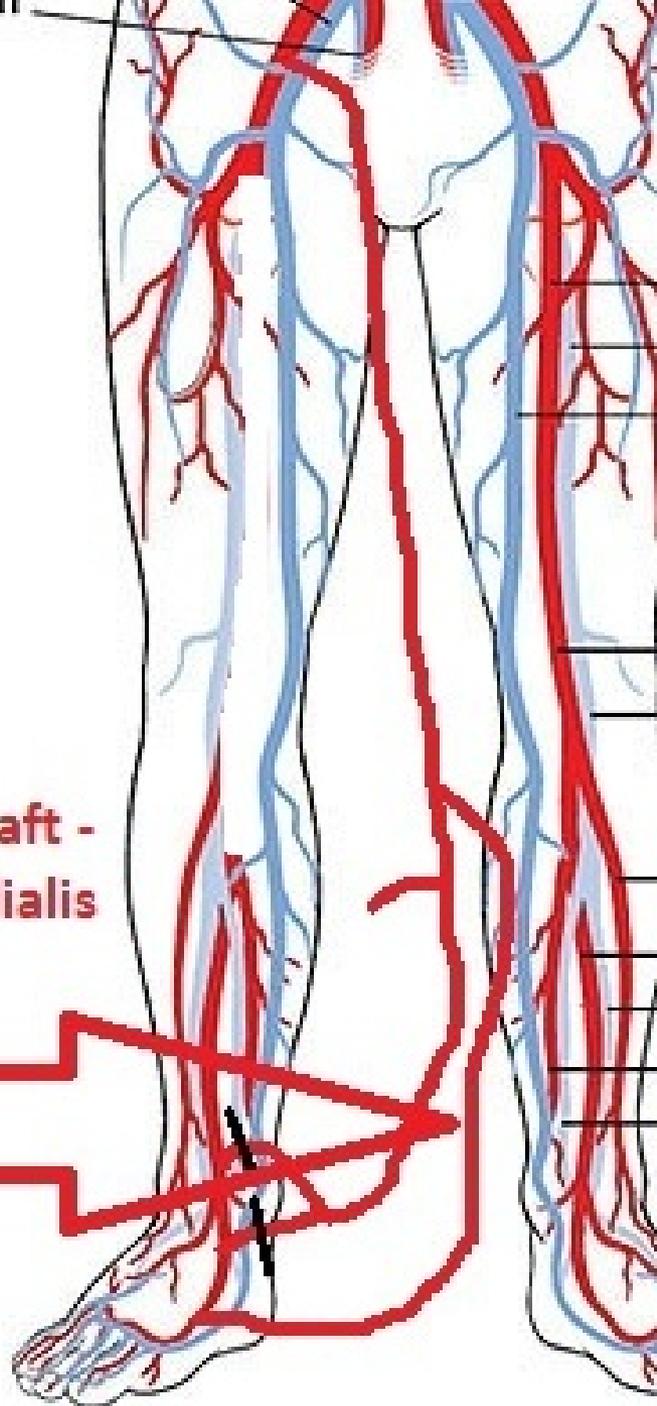
**Repeated
anastomosis**





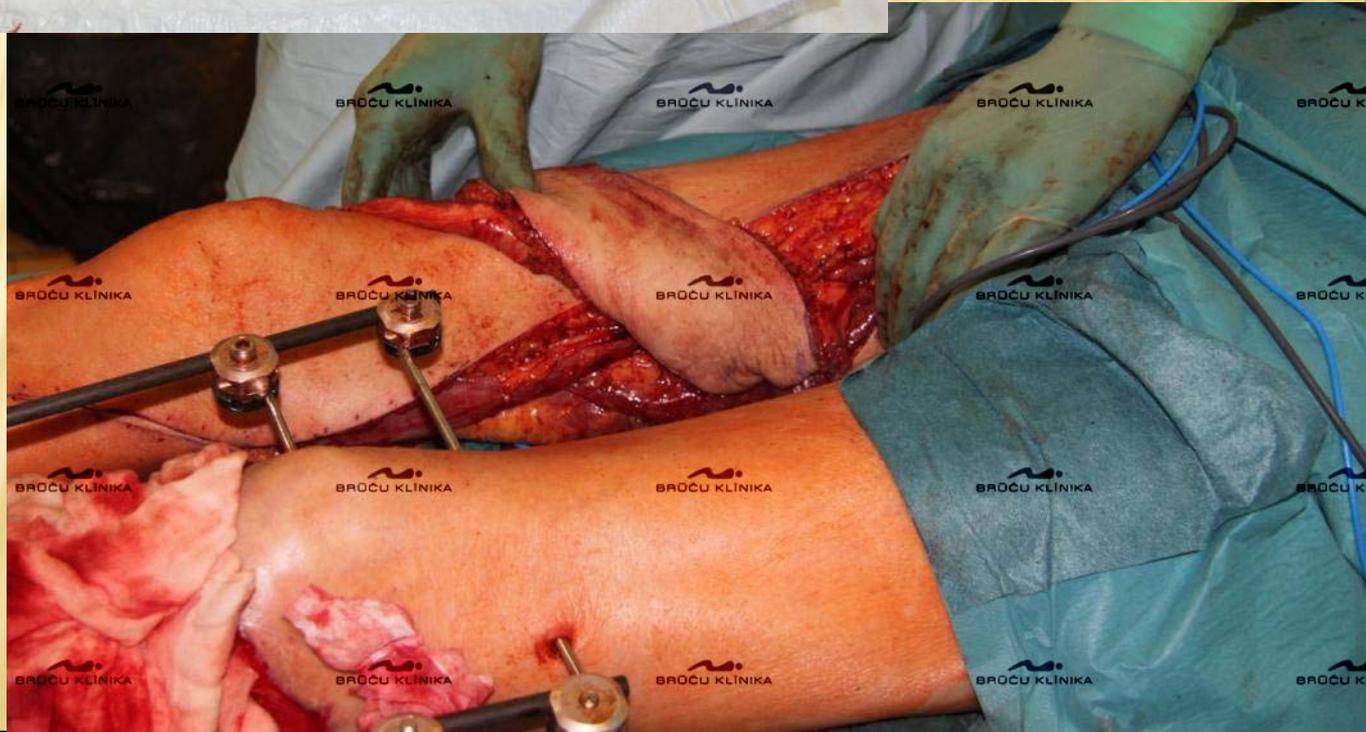
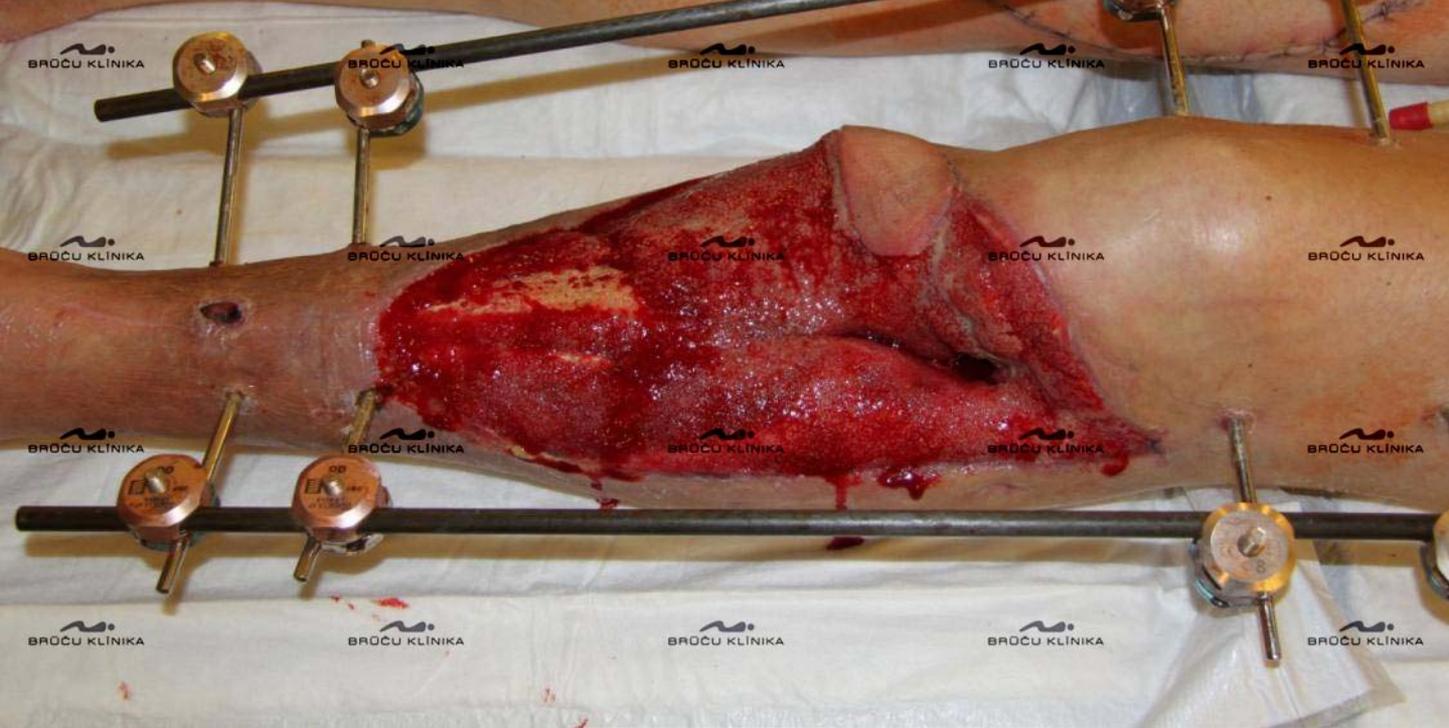


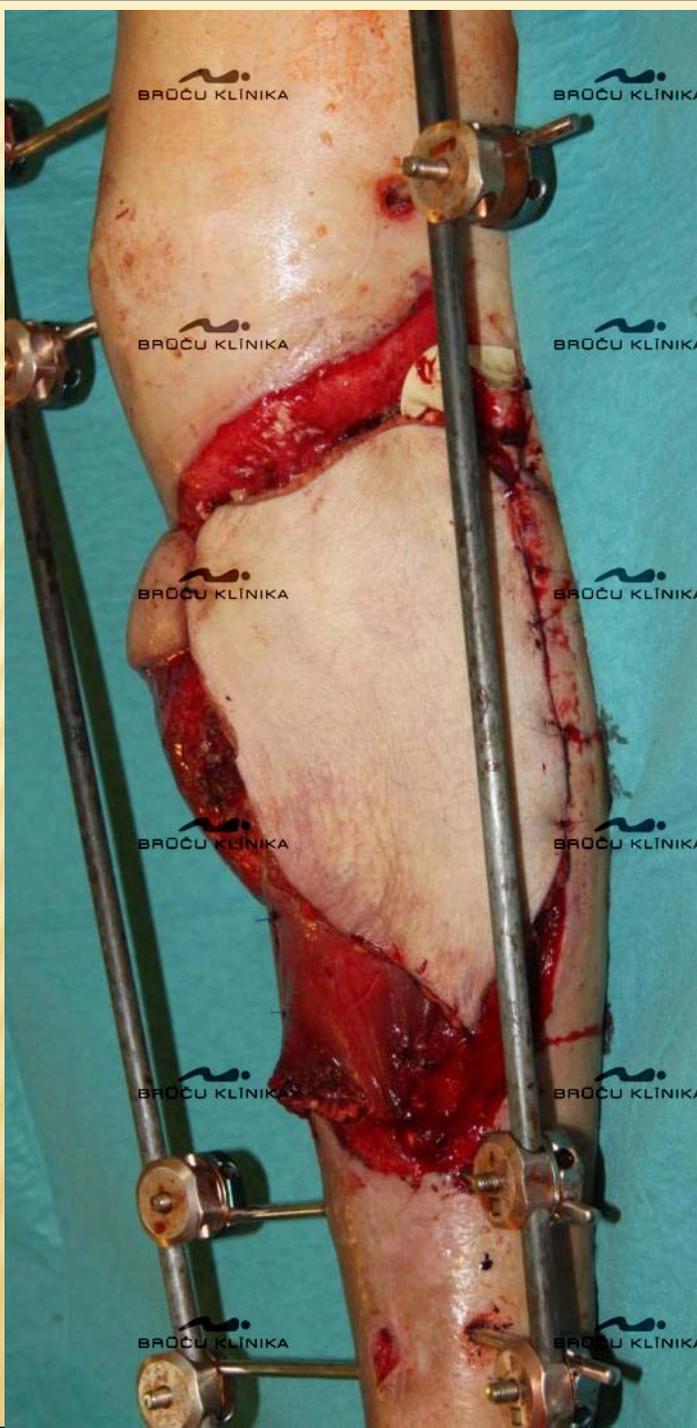
internal iliac vein



venous graft - tarsalis medialis

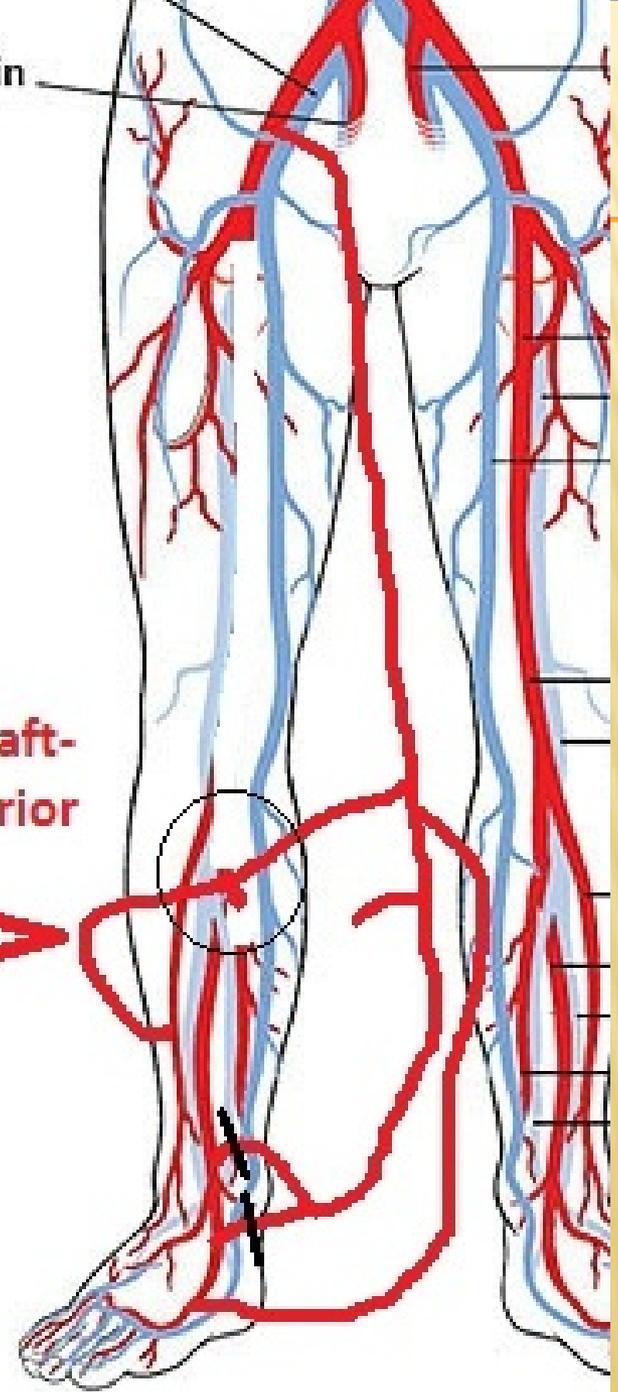
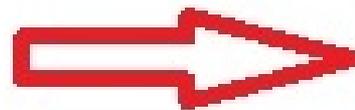






internal iliac vein

Saphenous graft-
a.tibialis anterior



BROČU KLÍNKA



CONCLUSIONS

- ✘ Revascularisation and reconstruction is associated with high complication risk.
- ✘ High amputation risk in late postoperative period
- ✘ Despite complications it is worth to perform reconstruction thus improving patients life quality

THANK YOU!