

Angiosom-rettet revaskularisering - har det nogen betydning?

Kim Houliind

Karkirurgisk afdeling DKC

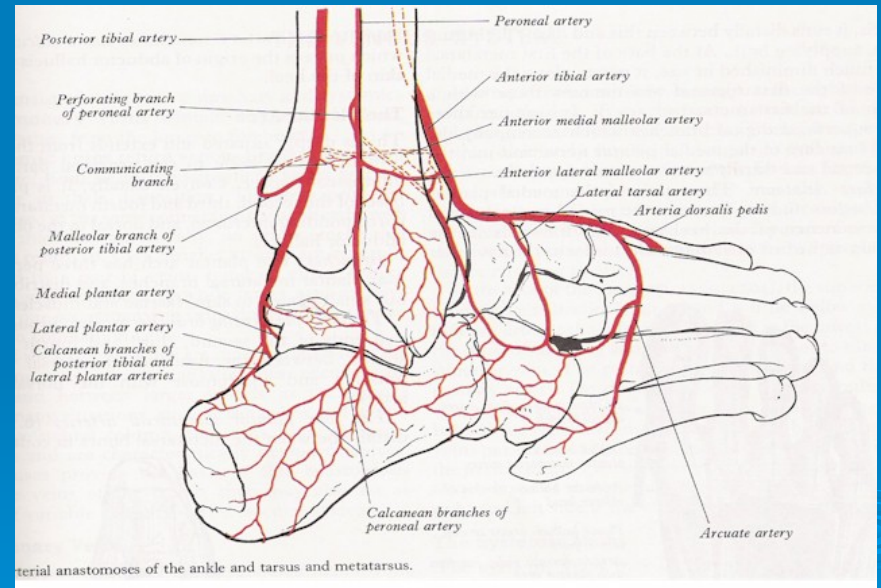
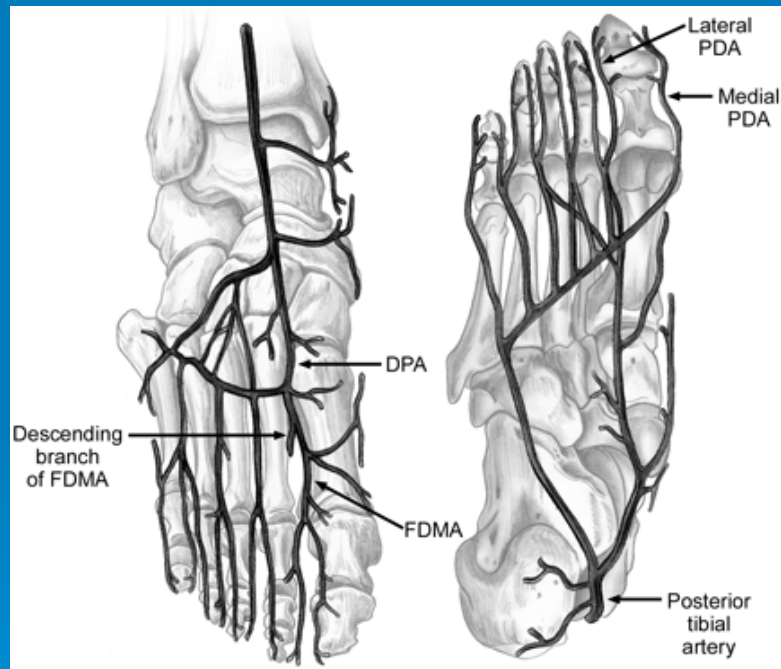
Kolding Sygehus

Recommendation 39. Femoral distal bypass outflow vessel

- In a femoral tibial bypass, the least diseased distal artery with the best continuous run-off to the ankle/foot should be used for outflow regardless of location, provided there is adequate length of suitable vein [C].

TASC II, Norgren et al
2007

Grade	Recommendation
A	Based on the criterion of at least one randomized, controlled clinical trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B	Based on well-conducted clinical studies but no good quality randomized clinical trials on the topic of recommendation
C	Based on evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities (i.e. no applicable studies of good quality)



Fodens angiosomer





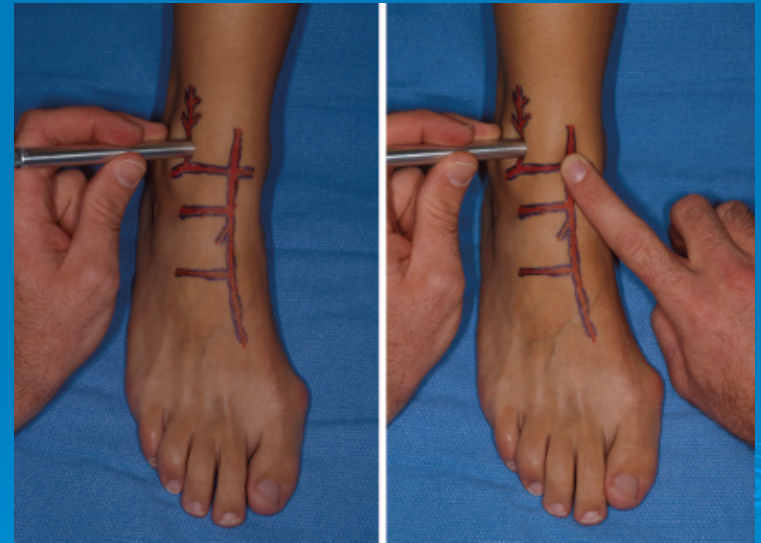
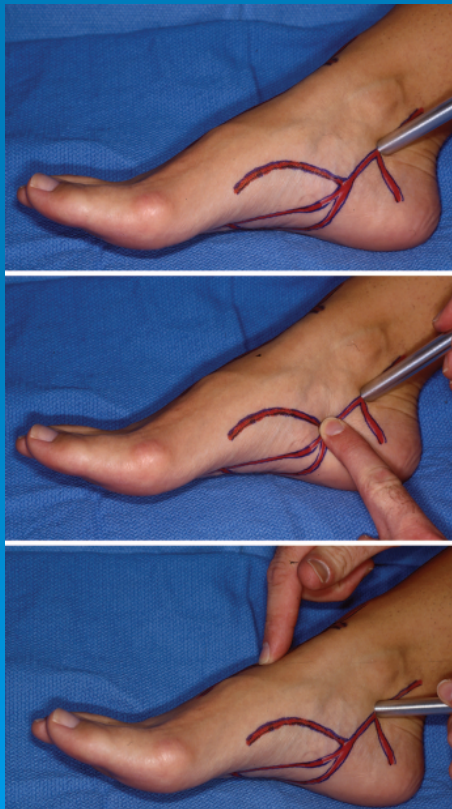
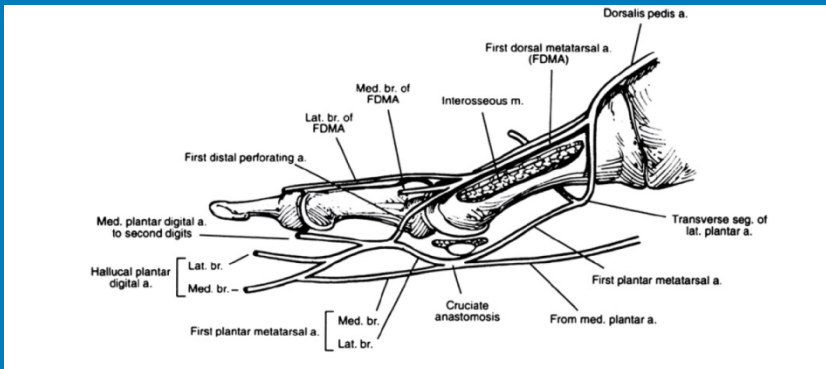
failblog.org

FAIL

Forsyning af et angiosom fra nabo-
angiosom:

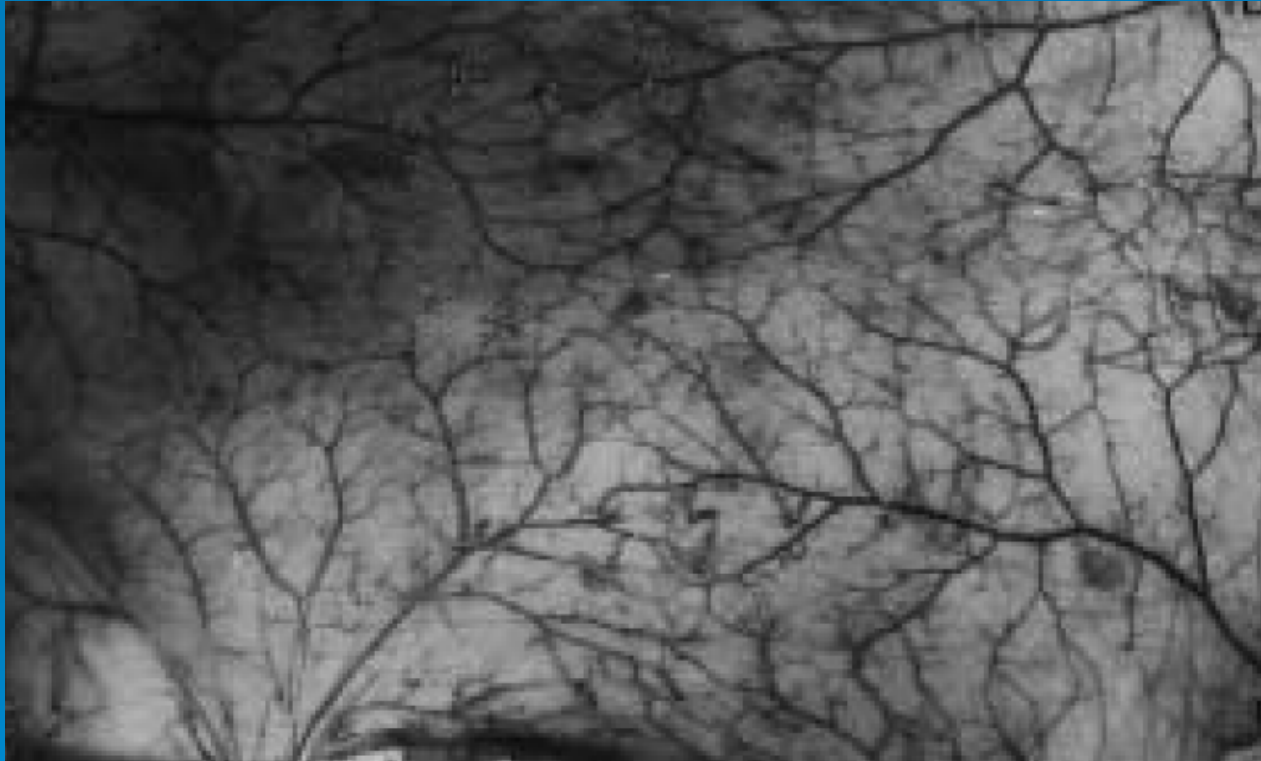
1. Arterio-arterielle forbindelser
2. Choke arteries
3. Overlap mellem angiosomer

Normale arterielle forbindelser mellem angiosomer



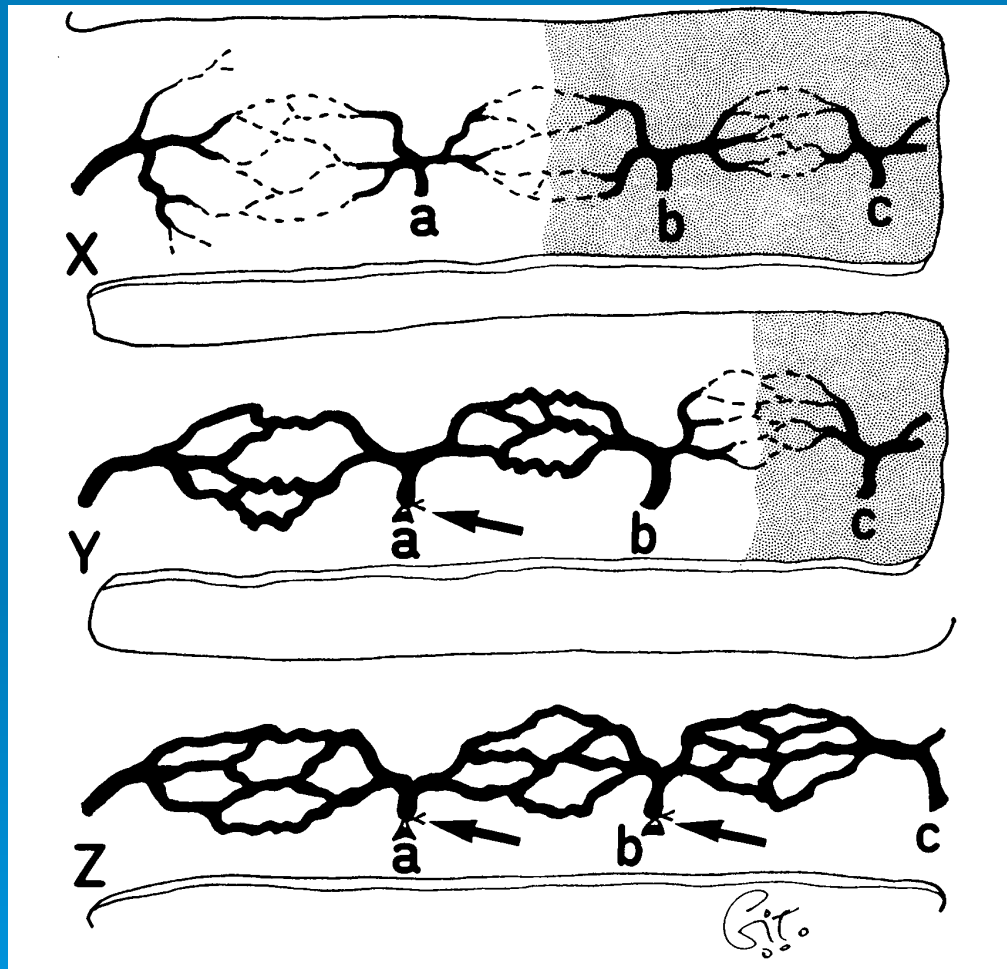
Clemens and Attinger
Foot Ankle Clin N Am 2010;15:439-64

Choke arteries



Aydin and Mavili, J Reconstruct Microsurgery 2003;19: 187-94

Choke arteries og delay phenomenon



Overlap mellem angiosomer

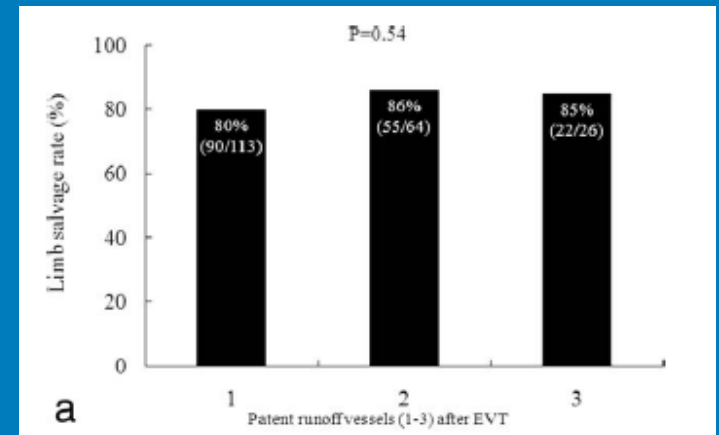
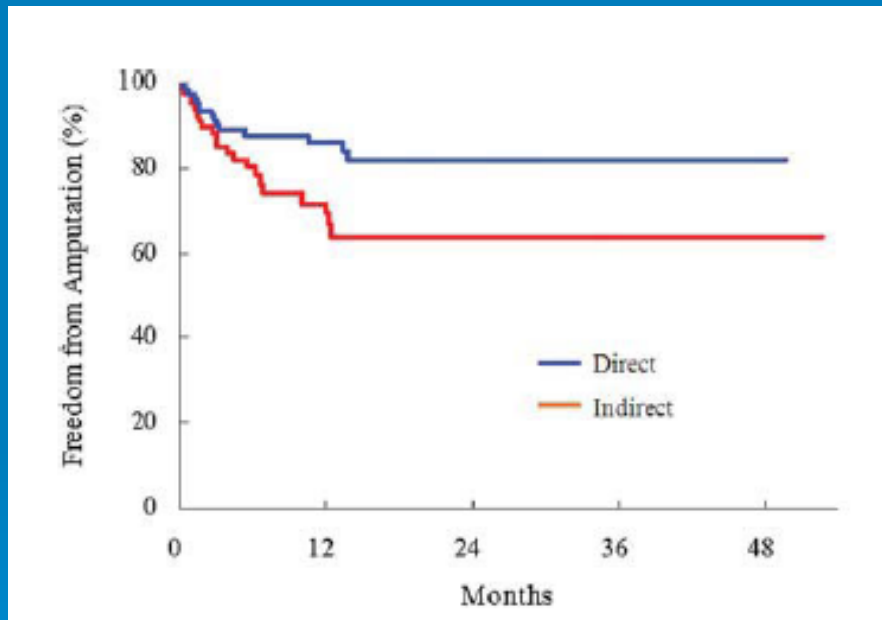


1. Tå forsynet af
 1. A. Plantaris Lat.
 2. A. Plantaris Med.
 3. ADP

- Hælens forsyning fra både
1. Ram. Calcaneus Lat. (a. peronea)
 2. Ram. Calcaneus Med. (ATP)

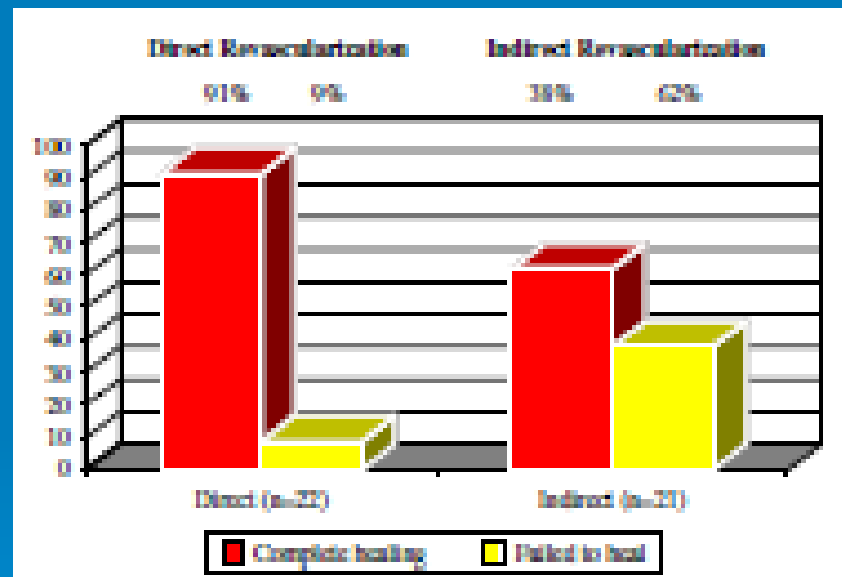


Betydning af angiosomrettet revaskularisering ved endovaskulær terapi

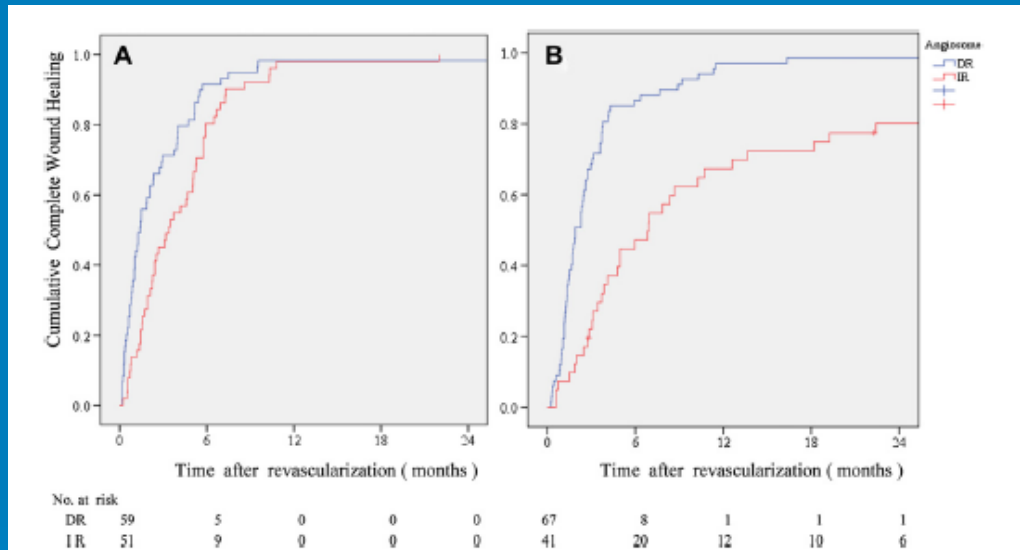


Iida et al 2010

Angiosomrettet bypass

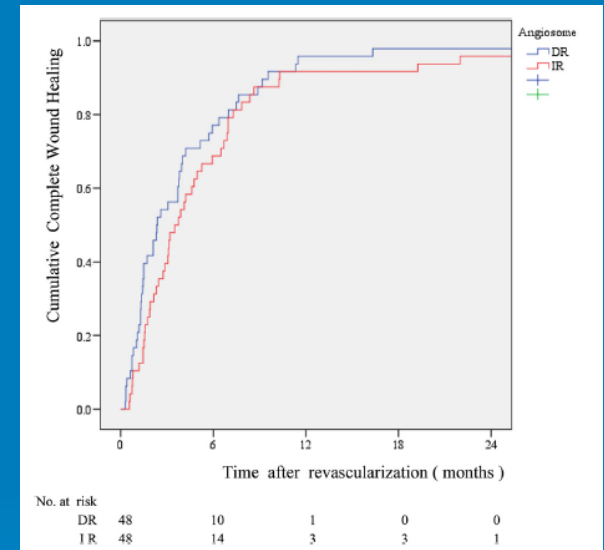


Angiosomrettet terapi ved bypass



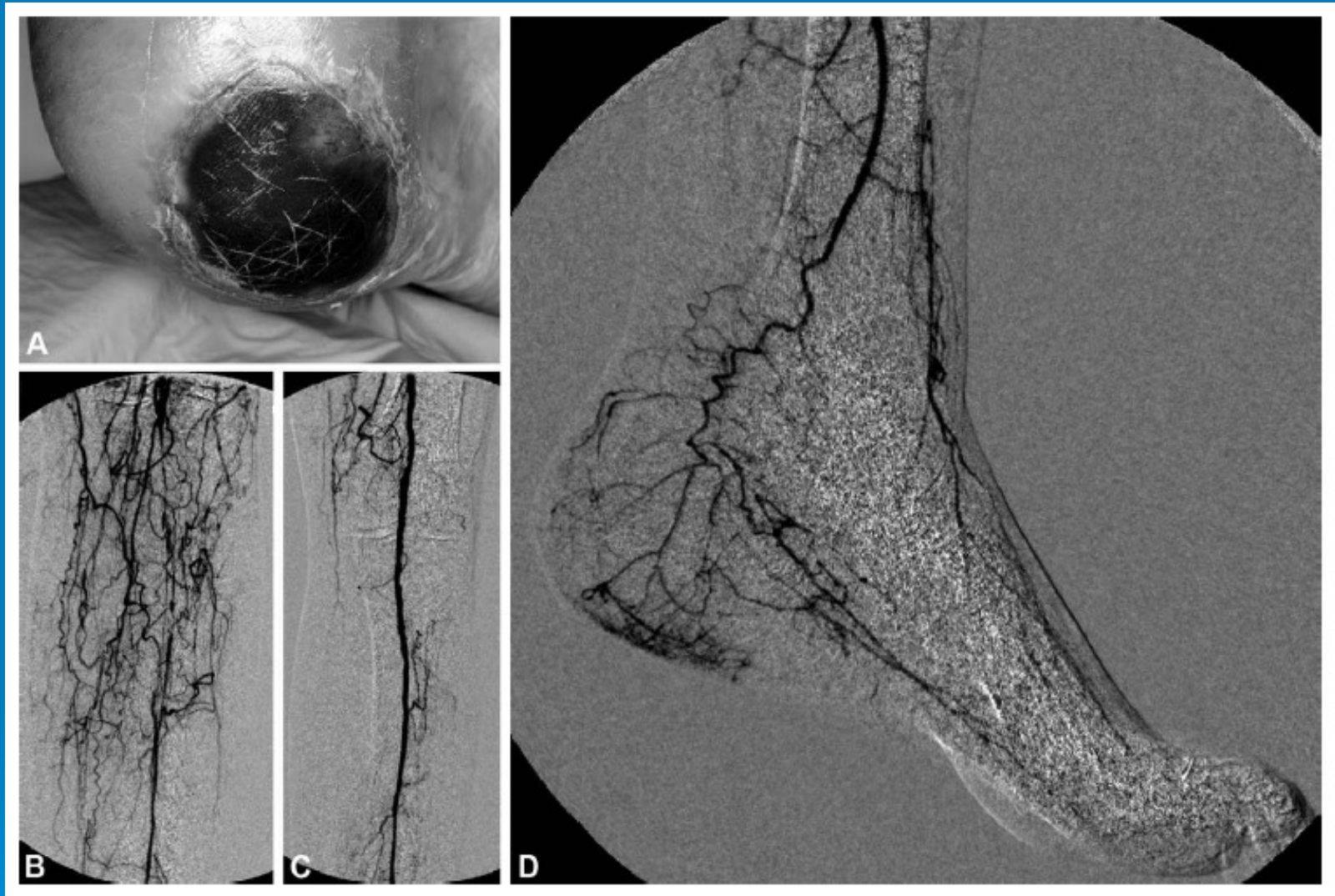
Normal nyrefkt

Nyresvigt



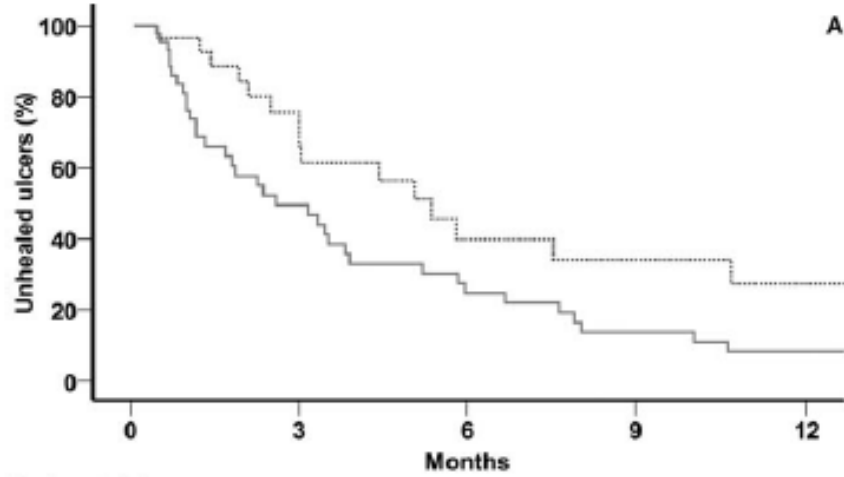
Matchede par

Azuma et al 2012



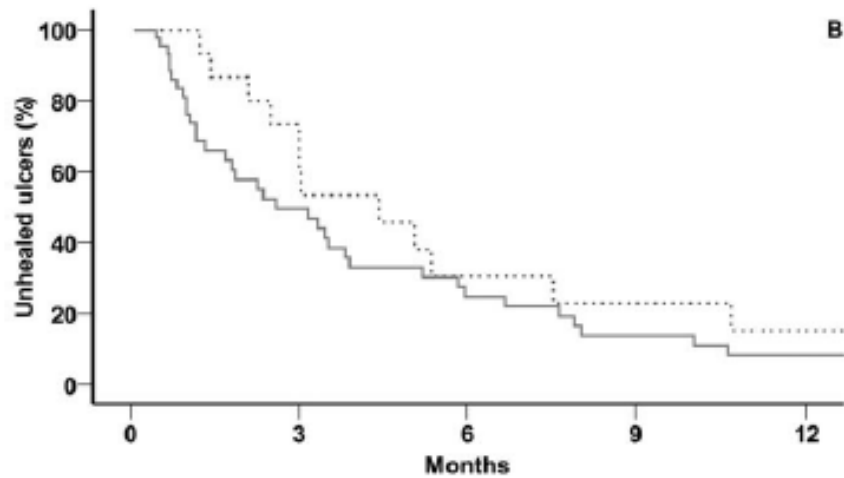
Indirekte revaskularisering til hælsår på mediale hæl via collateraler fra a.peronea til ramus cal. Medialis (som normalt fyldes fra atp).Varela et al 2010

35 pta og 41 in situ bypass
 Direkte revaskulariserede 45
 Indirekte revaskulariserede 31
 – heraf 18 med præoperativt synlige
 arterio-arterielle forbindelser.



Limbs at risk

DR	45	18	9	5	2
IR	31	16	7	6	4



Limbs at risk

DR	45	18	9	5	2
IRc	18	11	4	3	2

Uhelede sår under opfølgning,
 DR vs IR og DR vs IRc

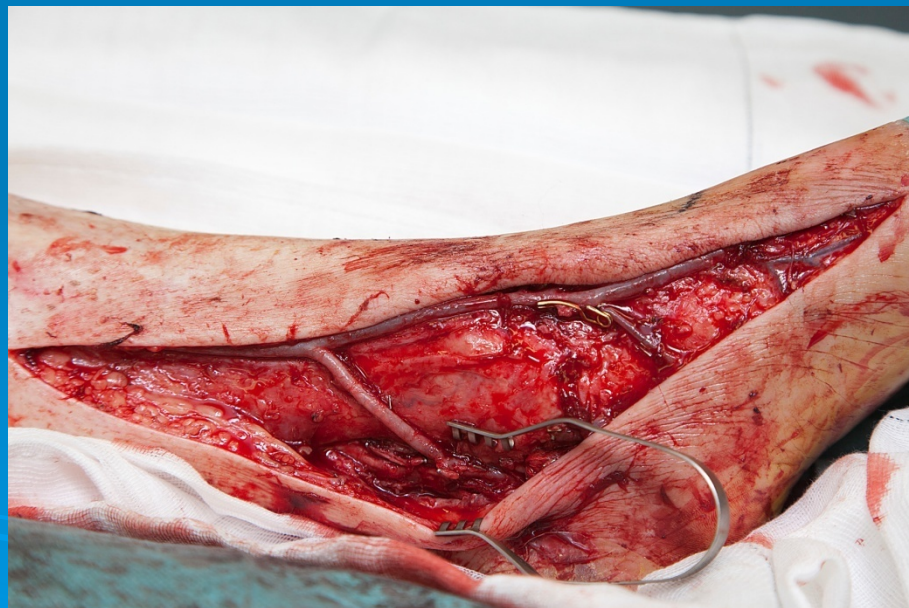
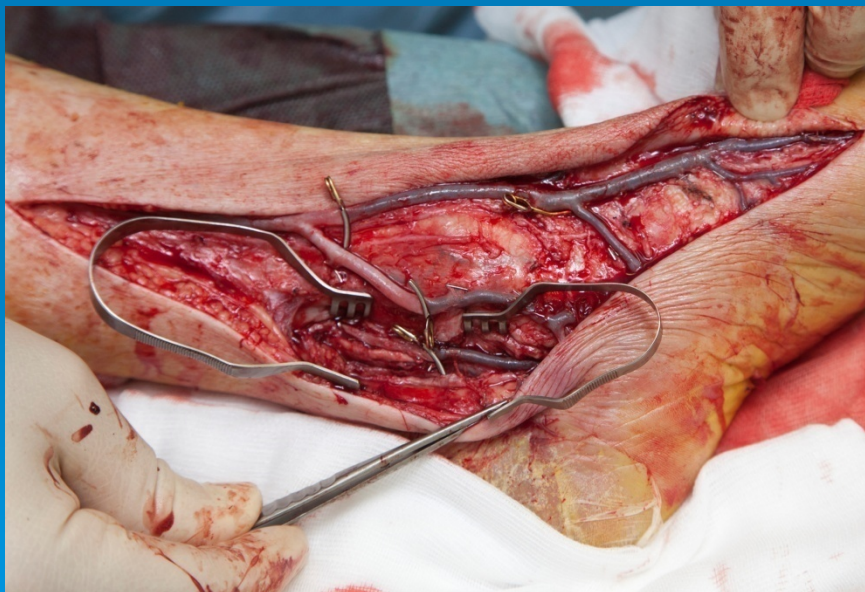
Frihed for amputation efter direkte eller indirekte revaskularisering

	År	Behandling	n (ben/patienter)	IR	DR	p
Neville	2009	Kirurgi	52/48	0,62	0,91	p<0.05
Varela	2010	Kirurgi og +Endovaskulær	76/70	0,72	0,93	p<0.05
Iida	2010	Endovask	203/177	0,69	0,86	p<0.05
Deguchi	2010	Kirurgi	66/66	0,72	0,73	p=ns
Alexandriescu	2011	Endovaskulær	232/208	0,67	0,86	p<0.05
Blanes	2011	Endovaskulær	34/32	0,73	0,79	p=ns
Iida	2012	Endovaskulær	369/329	0,68	0,82	p<0.05
Azuma	2012	Kirurgi	249/228 (98)	0,92	0,98	p=ns

DR: Direkte revaskularisering, IR: Indirekte revaskularisering



- Blandt de mange overvejelser, der gør sig gældende ved valg af afløbskar for kirurgisk eller endovaskulær revaskularisering, bør det tages med i betragtning om man kan revaskularisere det ramte angiosom direkte (B).



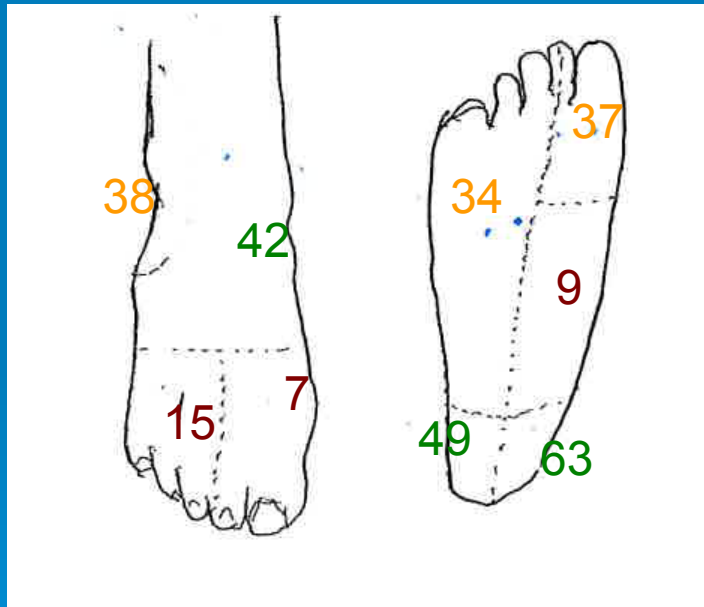
<20

20-40

>40

Før operation

SO₂ (%)



<20

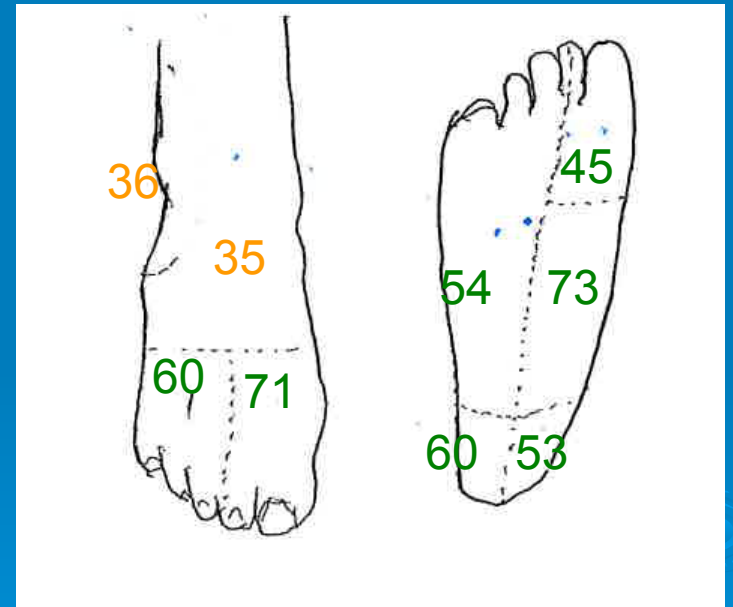
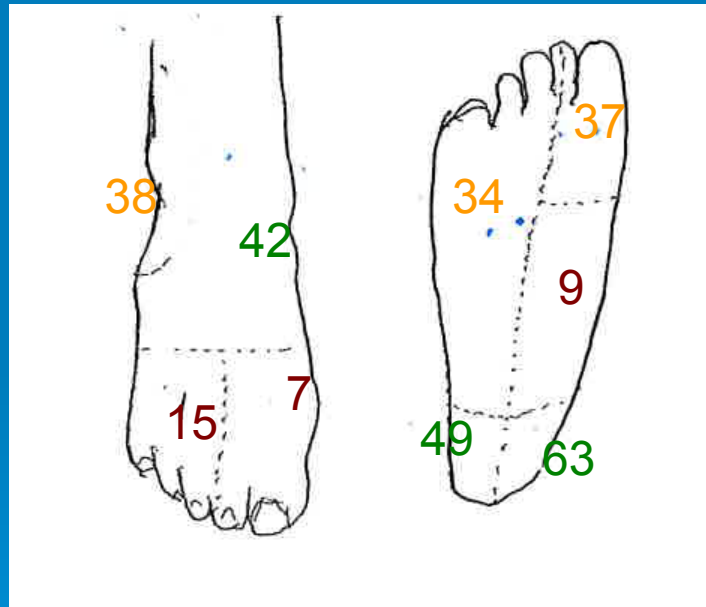
20-40

>40

Før operation

Efter operation

SO₂ (%)

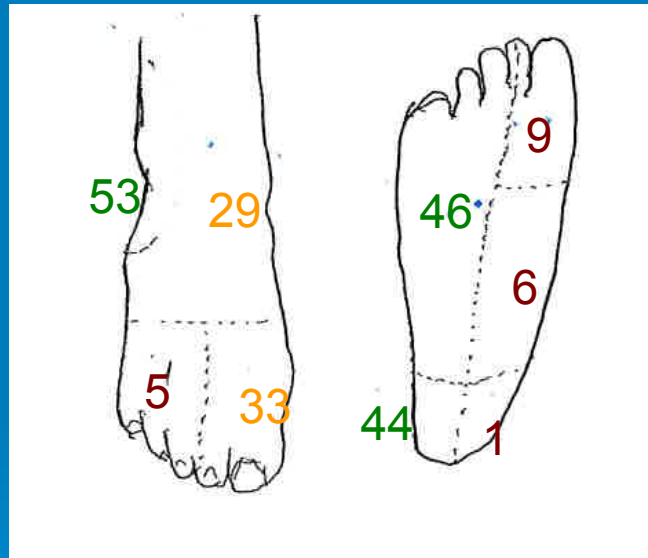


<20

20-40

>40

Flow (AU)

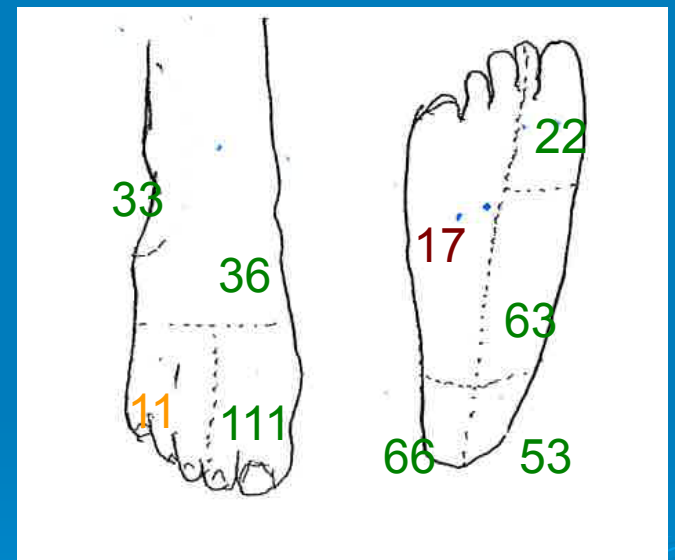
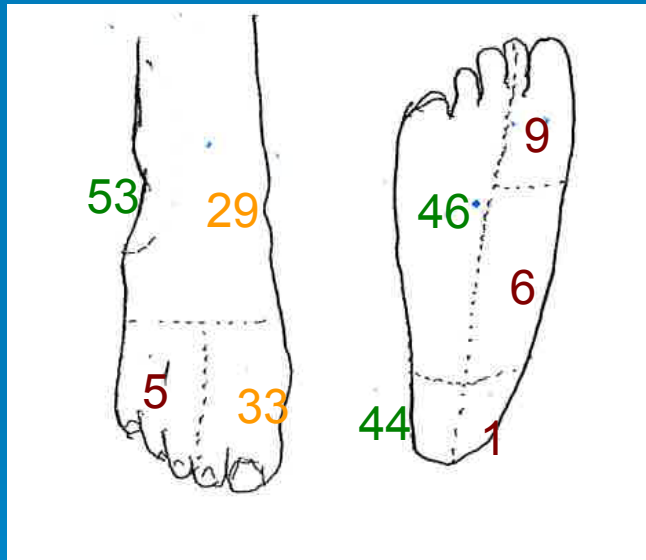


<20

20-40

>40

Flow (AU)





Tak for opmærksomheden