

Minimaal invasieve ingrepen bij vasculaire problemen

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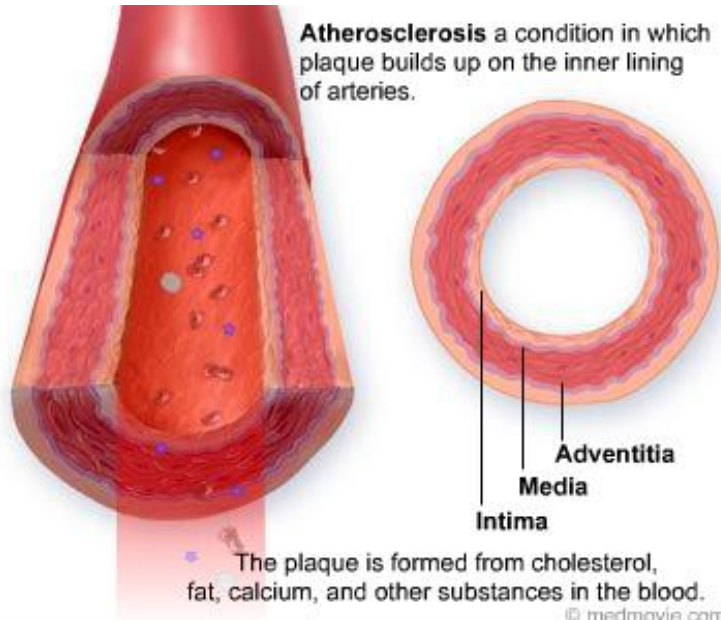
Inleiding

- Perifeer arterieel vaatlijden
- Beeldvormende technieken
- Endovasculaire behandeling
- Enkele voorbeelden

Perifeer arterieel vaatlijden (PAV)

- Perifeer = m.n. benen
- Arterieel = slagader
- Vaatlijden = atherosclerose, slagaderverkalking (ziekte van de vaatwand)

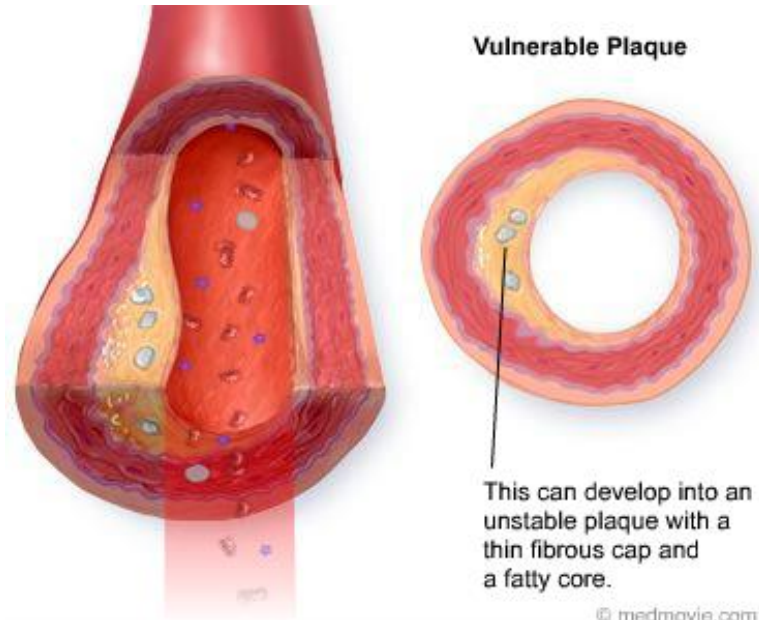
Atherosclerosis a condition in which plaque builds up on the inner lining of arteries.



The plaque is formed from cholesterol, fat, calcium, and other substances in the blood.

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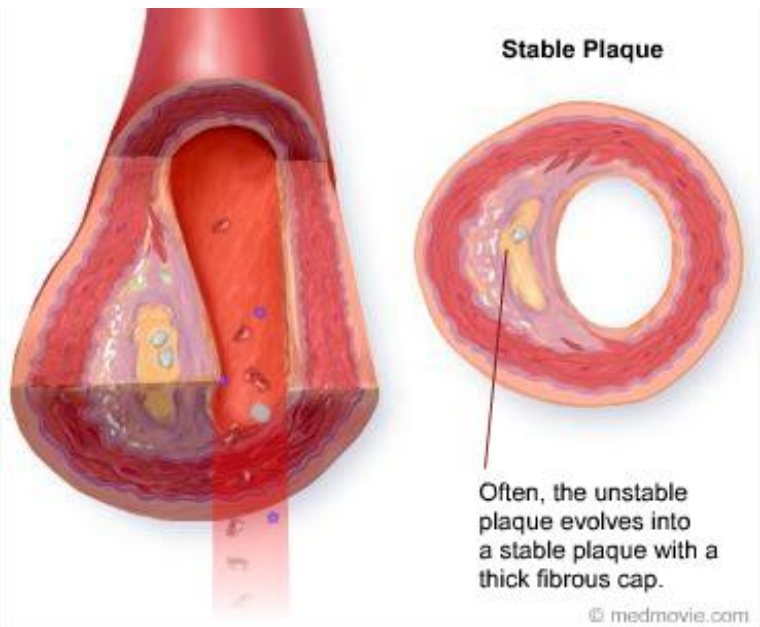
Vulnerable Plaque



This can develop into an unstable plaque with a thin fibrous cap and a fatty core.

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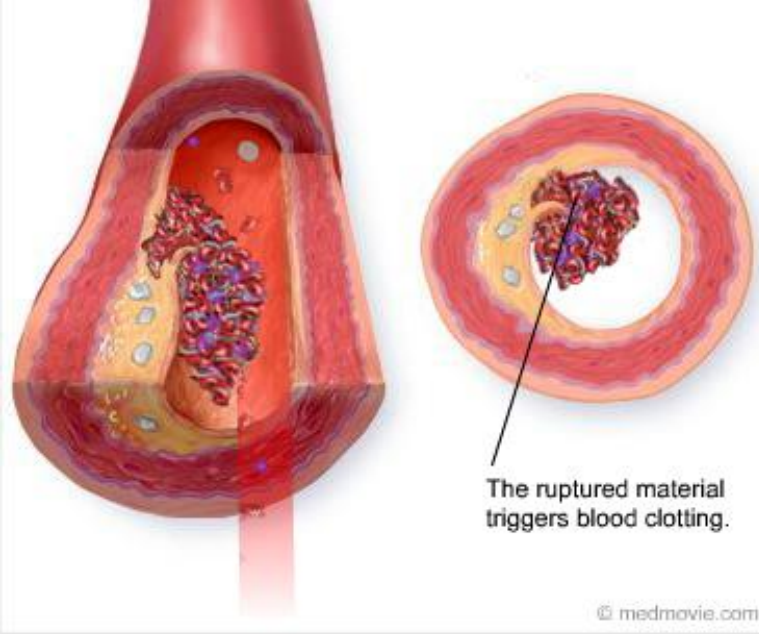
Stable Plaque



Often, the unstable plaque evolves into a stable plaque with a thick fibrous cap.

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The ruptured material triggers blood clotting.



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Perifeer arterieel vaatlijden (PAV)

- Stenosen en occlusies in PAV: Acuut vs chronisch
- Fontaine classificatie:
 - 1. Geen klachten
 - 2a. Claudicatio intermittens >100m
 - 2b. Claudicatio intermittens <100m
 - 3. Nachtpijn, rustpijn
 - 4. ulcera, dreigende necrose, gangreen

Perifeer arterieel vaatlijden (PAV)

- PAV (Claudicatio intermittens)
- Coronair (hart infarct)
- Cerebraal (TIA, CVA)

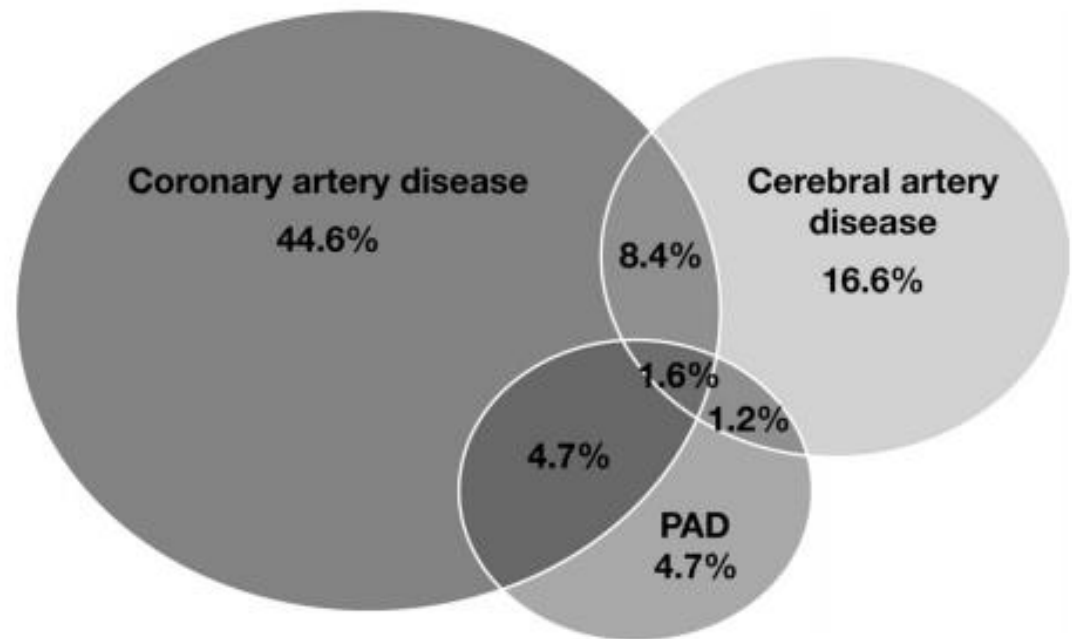


Fig. A7. Typical overlap in vascular disease affecting different territories.²⁶ Based on REACH data. PAD – peripheral arterial disease.

Perifeer arterieel vaatlijden (PAV)

- Epidemiologie PAV
- F1. prevalentie 3-10% toenemend tot 15-20% boven de 70 jaar (EAI).
- F2. prevalentie 3% (40 jaar) tot 6% (60 jaar)

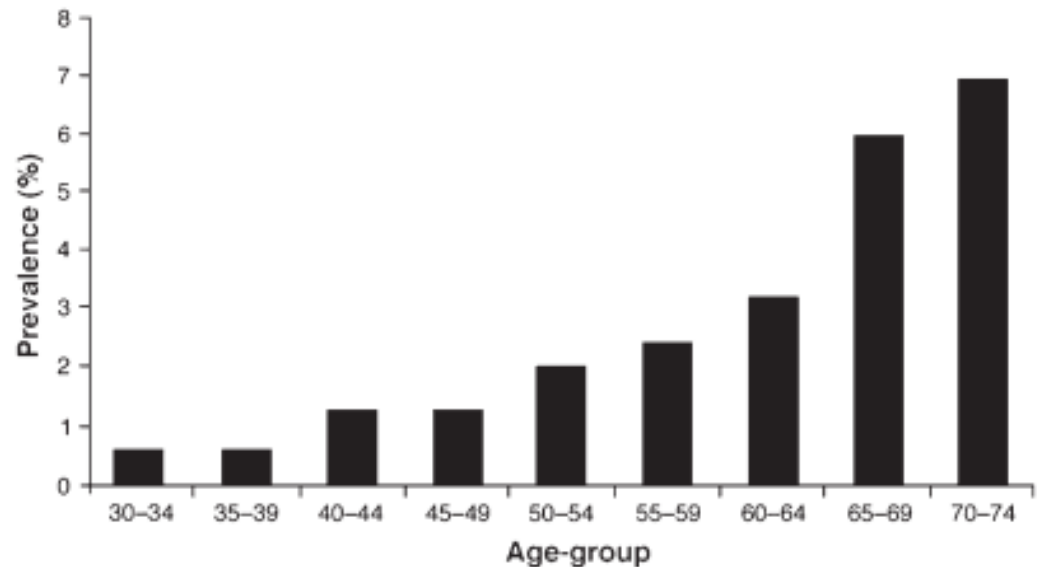


Fig. A1. Weighted mean prevalence of intermittent claudication (symptomatic PAD) in large population-based studies.

- Risico factoren

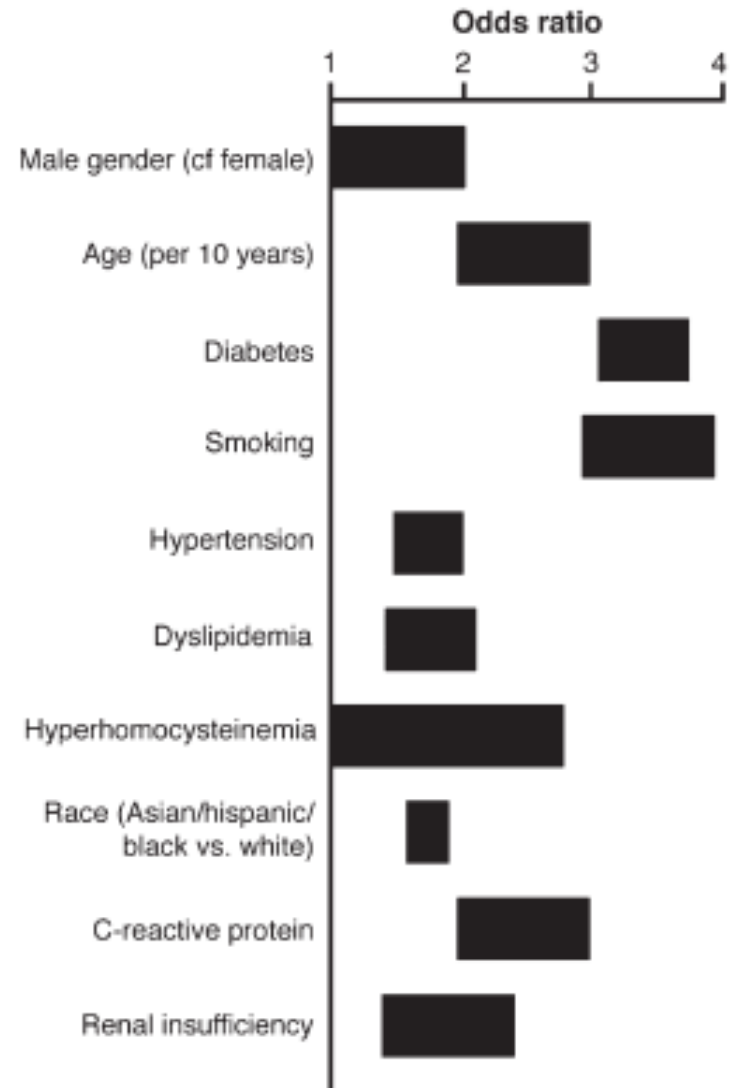


Fig. A2. Approximate range of odds ratios for risk factors for symptomatic peripheral arterial disease. Treatment of risk factors and the effect on the outcomes of PAD are described in Chapter B.

Perifeer arterieel vaatlijden (PAV)

- Behandeling (NHG standaard):
- ***EAI <0,8 (1 x of <0,9 (3 x) Perifeer arterieel vaatlijden aangetoond***
- optimaliseer risicoprofiel
- lokaal vaatlijden stadium 1 en 2: stoppen met roken en looptraining via huisarts; subjectief invaliderend: overweeg invasieve interventie: verwijzen
- stadium 3 en 4 of enkeldruk <50 mmHg: stoppen met roken en looptraining via huisarts; invasieve interventie: verwijzen

Perifeer arterieel vaatlijden (PAV)

- F4. Kritieke ischemie
- Incidentie 500-1000 per miljoen per jaar

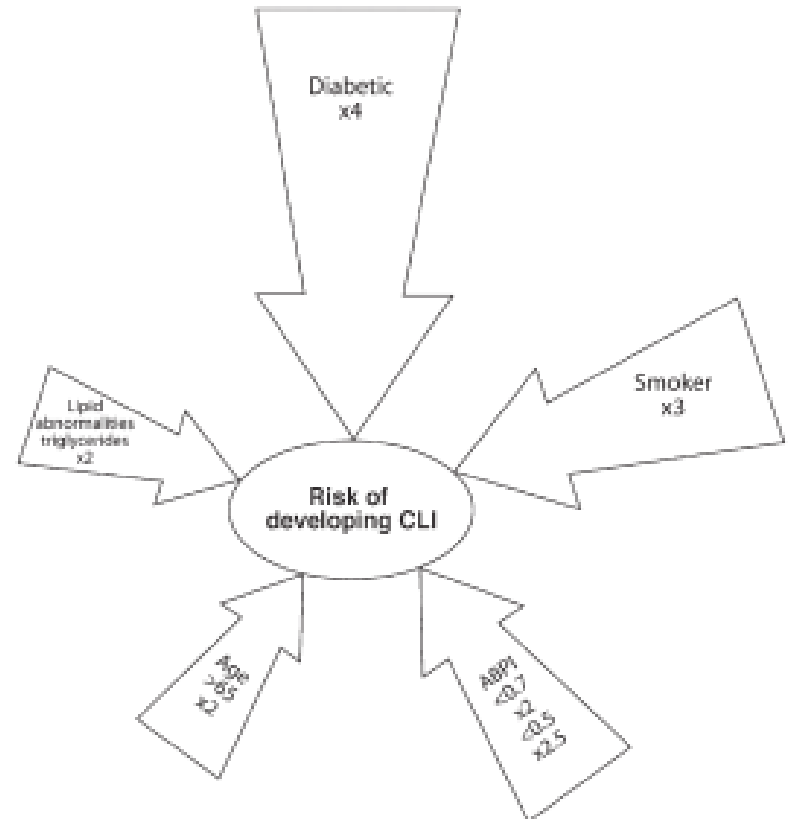


Fig. A4. Approximate magnitude of the effect of risk factors on the development of critical limb ischemia in patients with peripheral arterial disease. CLI – critical limb ischemia.

Perifeer arterieel vaatlijden (PAV)

- F4: behandeling

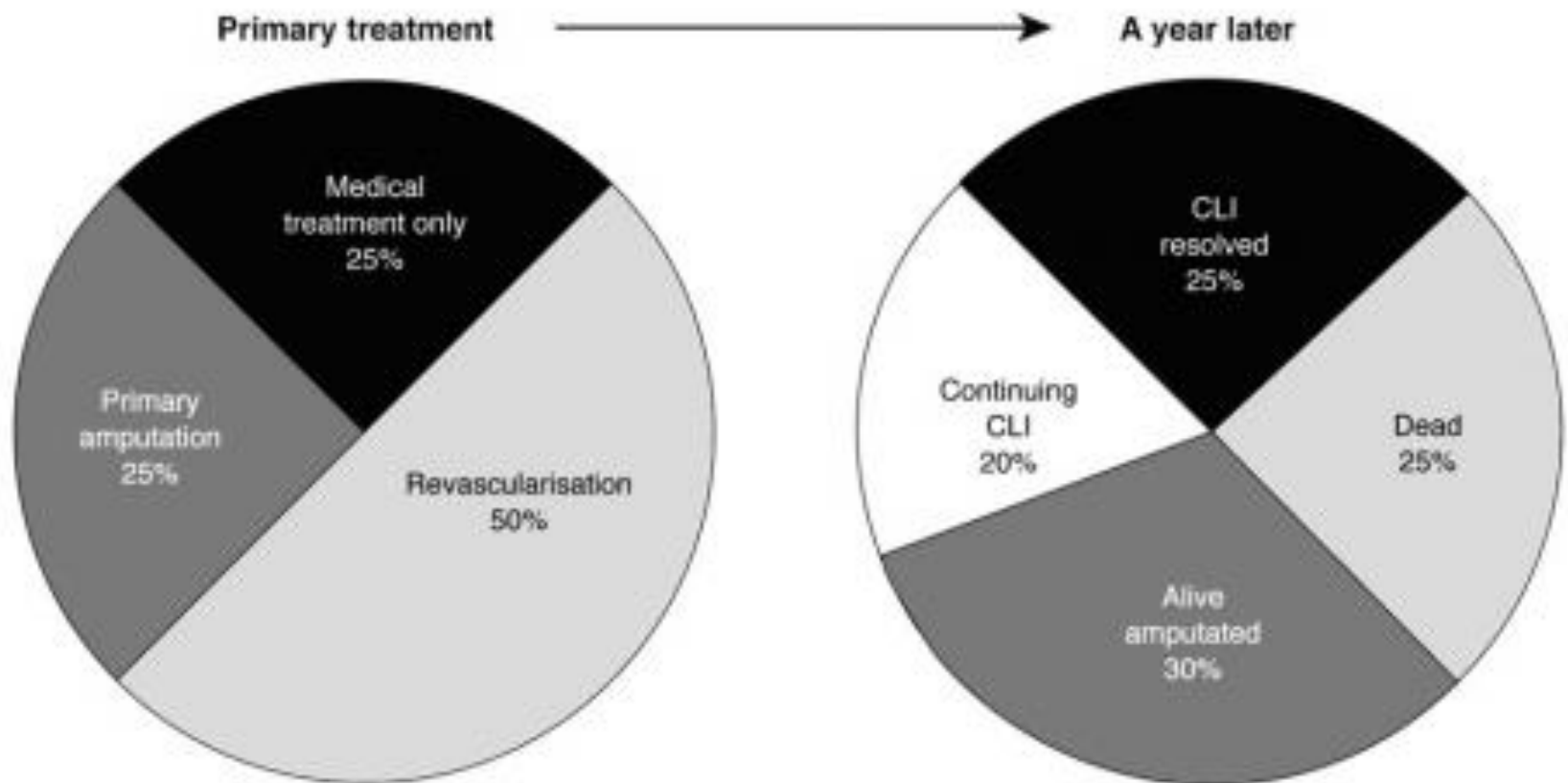


Fig. A5. Fate of the patients presenting with chronic critical leg ischemia. CLI – critical limb ischemia.

- Medicijnen: bij gefaalde revascularisatie na 6 mnd 40% amputatie, 20% overleden.
- Amputatie: 10% perioperatieve mortaliteit. Na 2 jaar 30% overleden, 30% nieuwe amputatie nodig.
- Revascularisatie: chirurgisch of endovasculair. Sinds introductie mogelijk afname amputaties.

Beeldvormende technieken

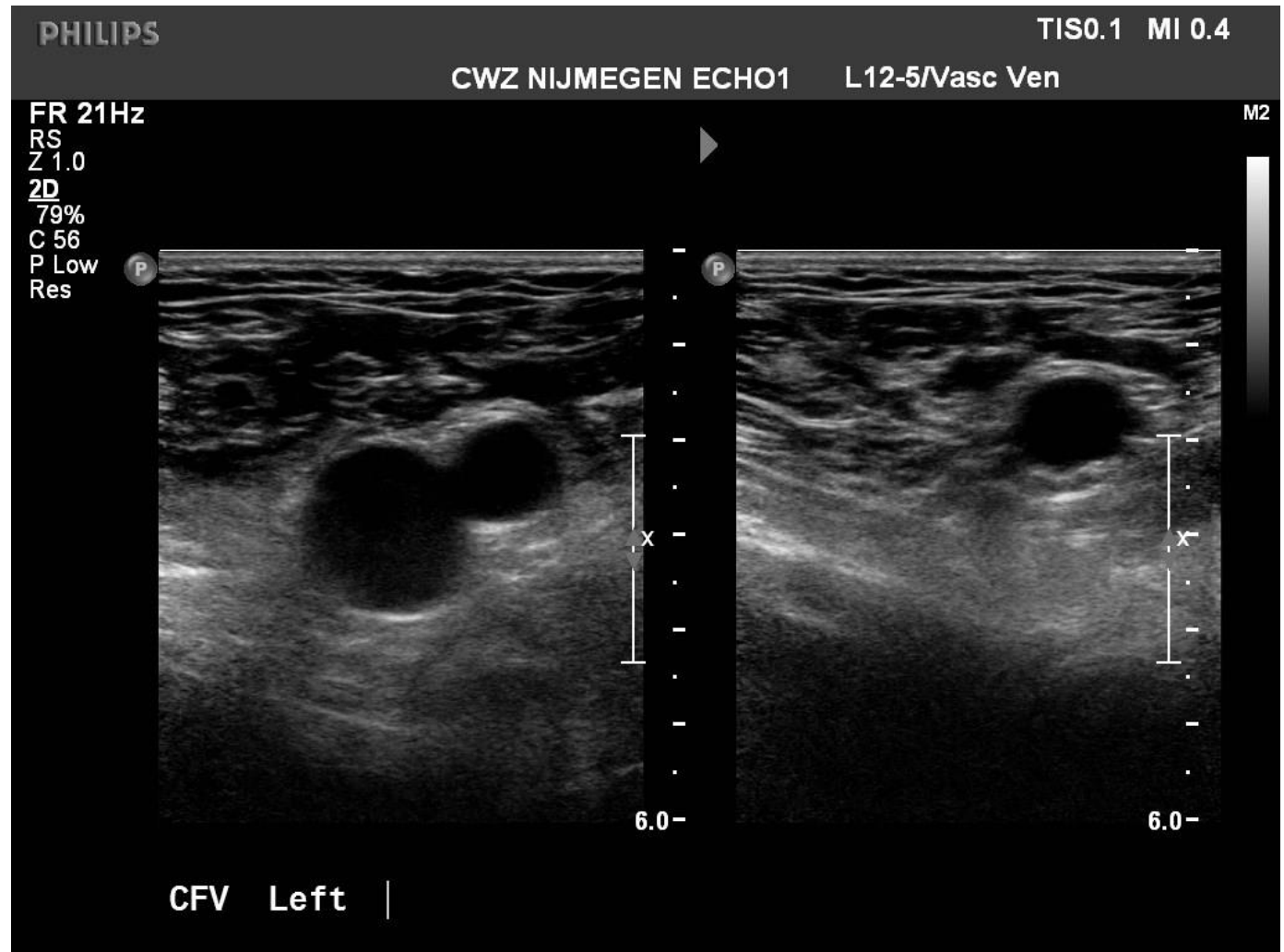
- US
- Snel, goedkoop
- Realtime
- Doppler

- Bot(kalk), lucht, vet
- Echografist
- Verslag



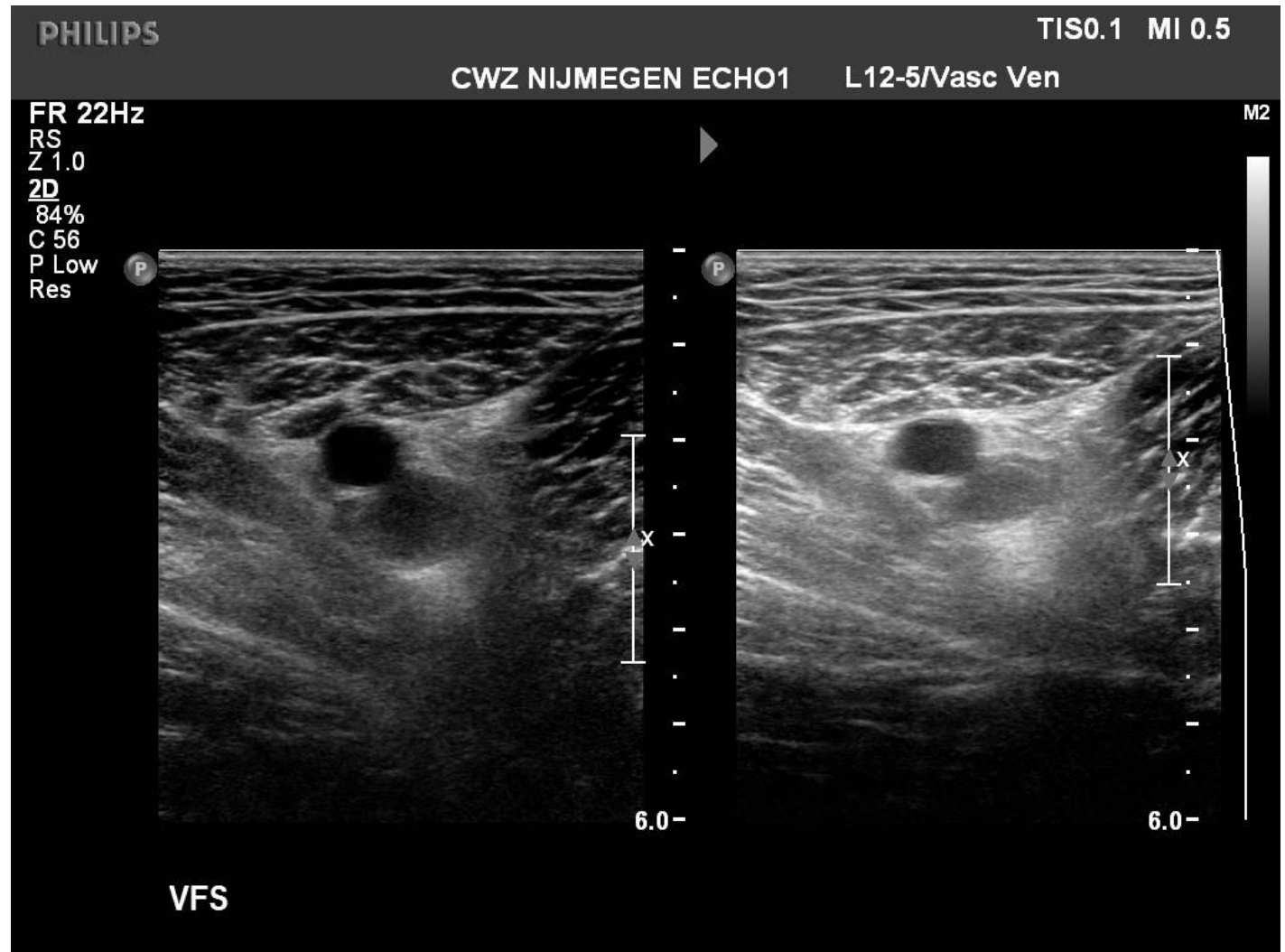
Beeldvormende technieken

- US



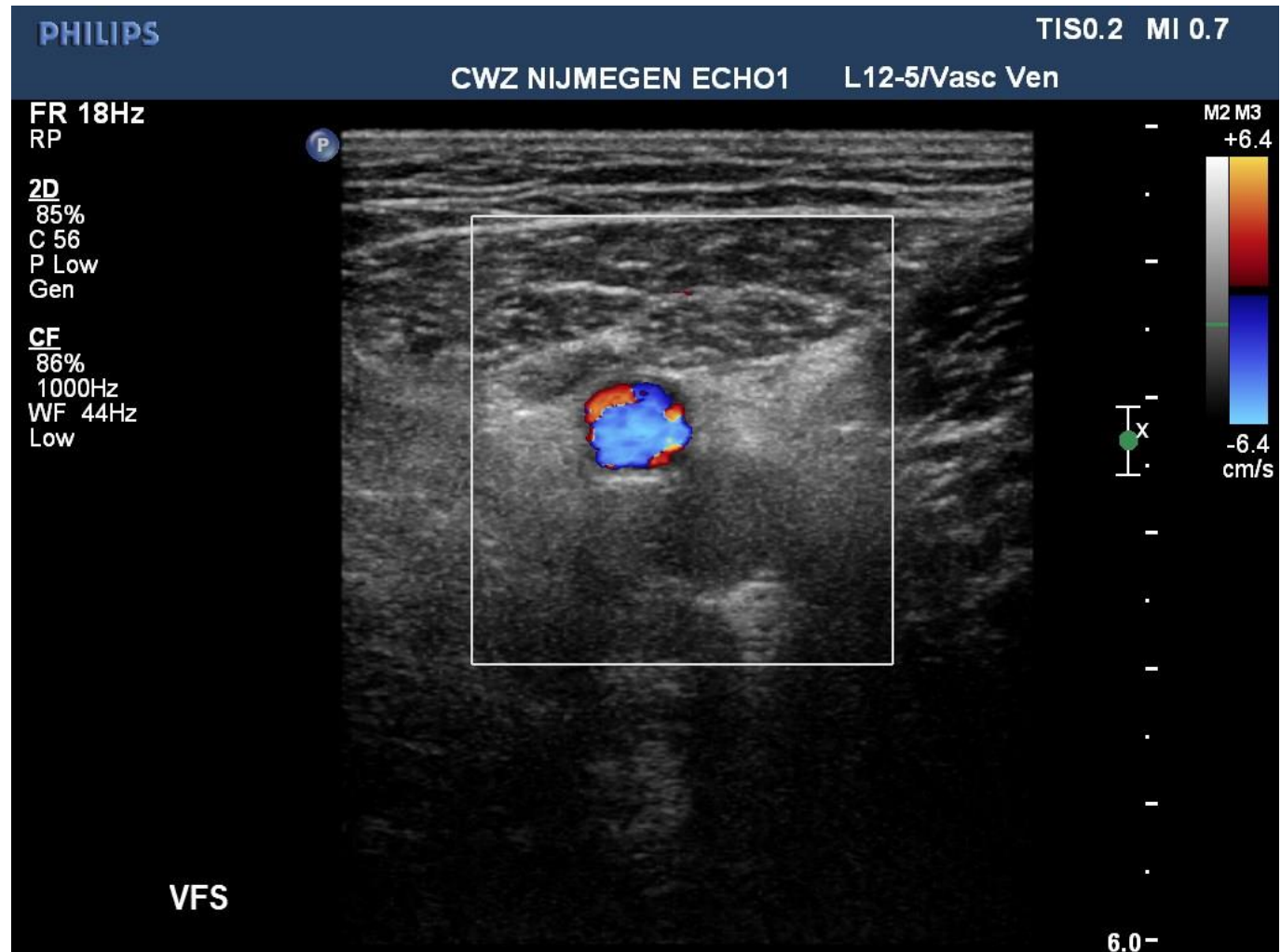
Beeldvormende technieken

- US



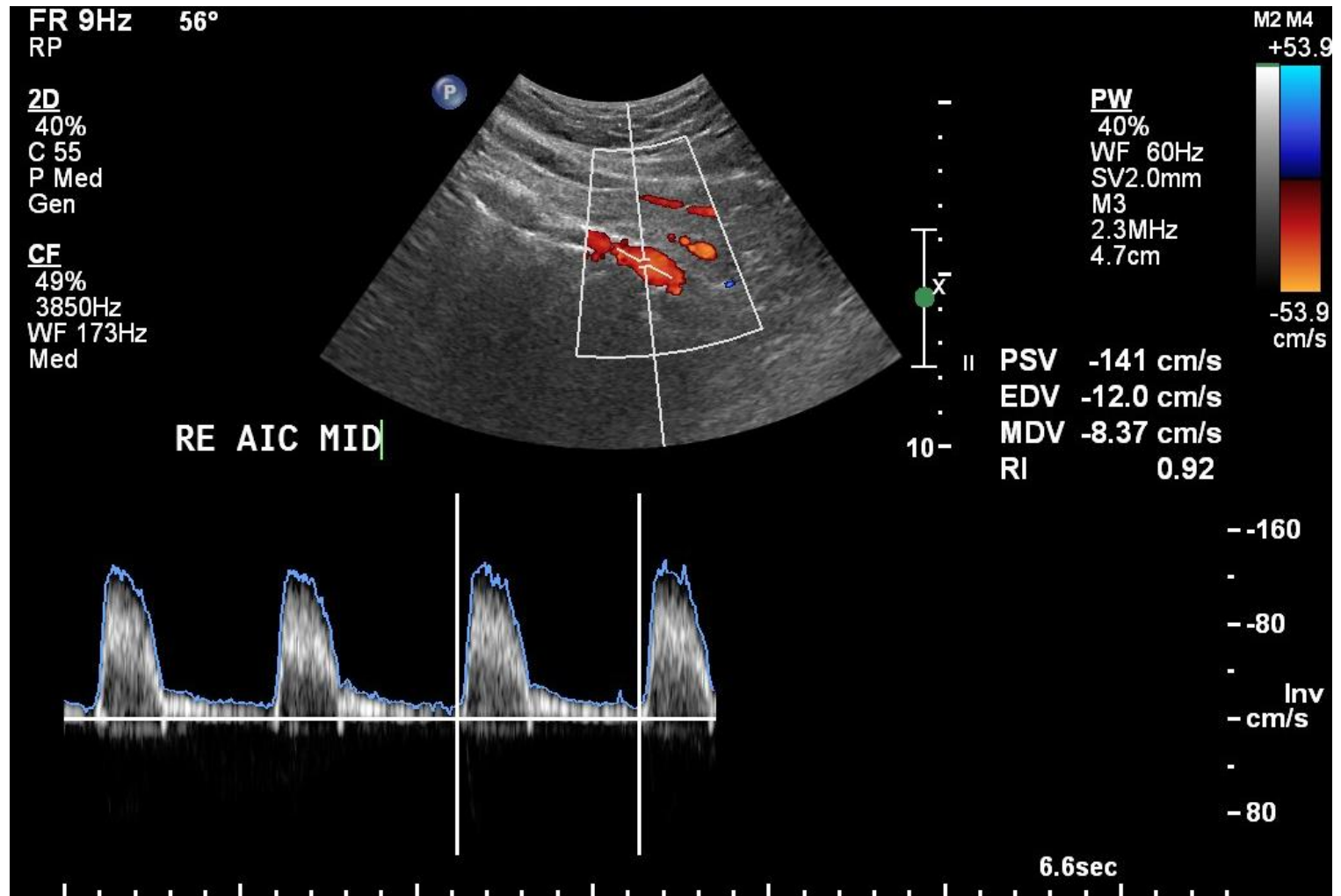
Beeldvormende technieken

- US



Beeldvormende technieken

- US



Beeldvormende technieken

- CT
 - Werkpaard
 - Snel
 - bot
-
- Röntgenstraling
 - Contrastmiddel



Beeldvormende technieken

- CT (blanco)



Beeldvormende technieken

- CT (met iv contrast)



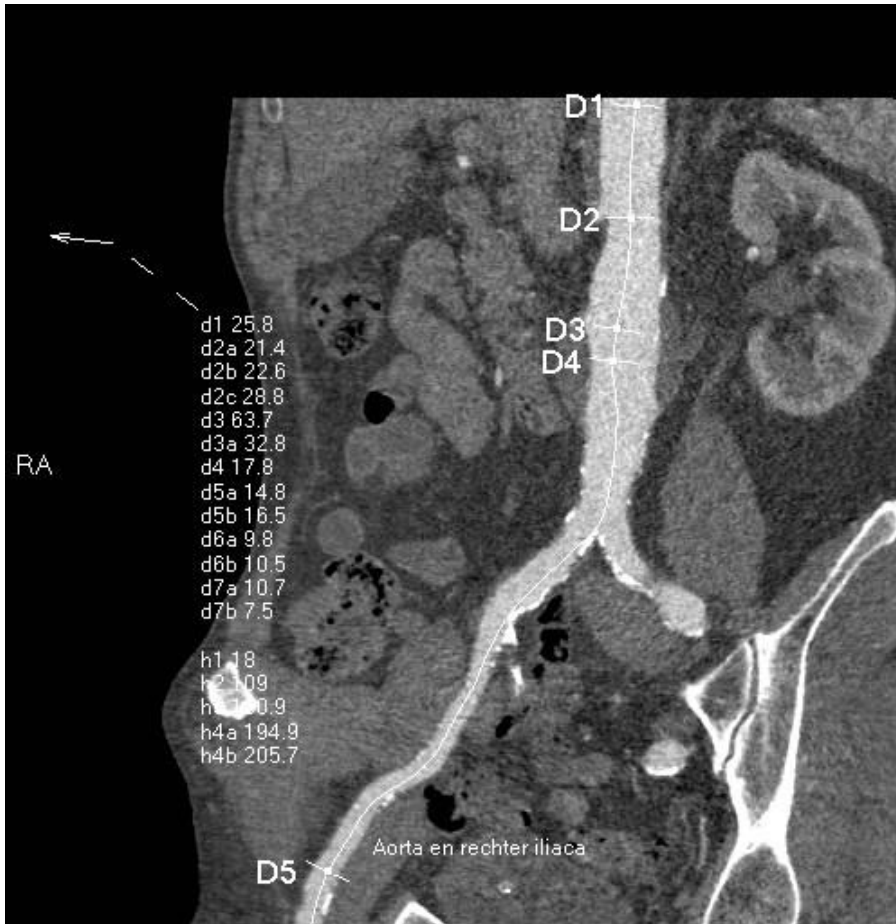
Beeldvormende technieken

- CT (angiografie)



Beeldvormende technieken

- CT



Beeldvormende technieken

- CT



Beeldvormende technieken

- MRI
- Geen straling
- gadolinium
- Hoge resolutie

- Langzaam
- magneet



Beeldvormende technieken

- MRA



Beeldvormende technieken

- MRA



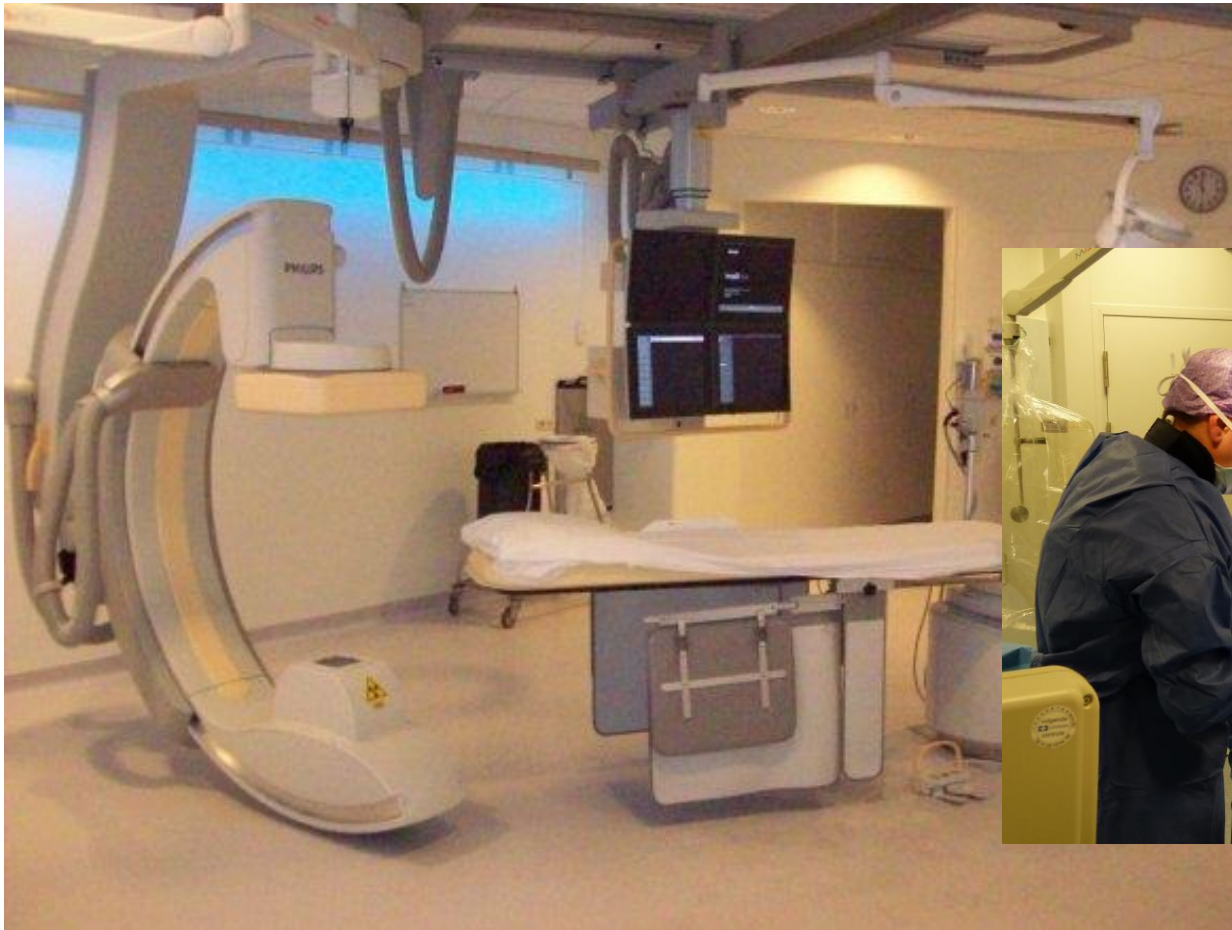
Beeldvormende technieken

- MRA



Beeldvormende technieken

- DSA (digitale subtractie angiografie)



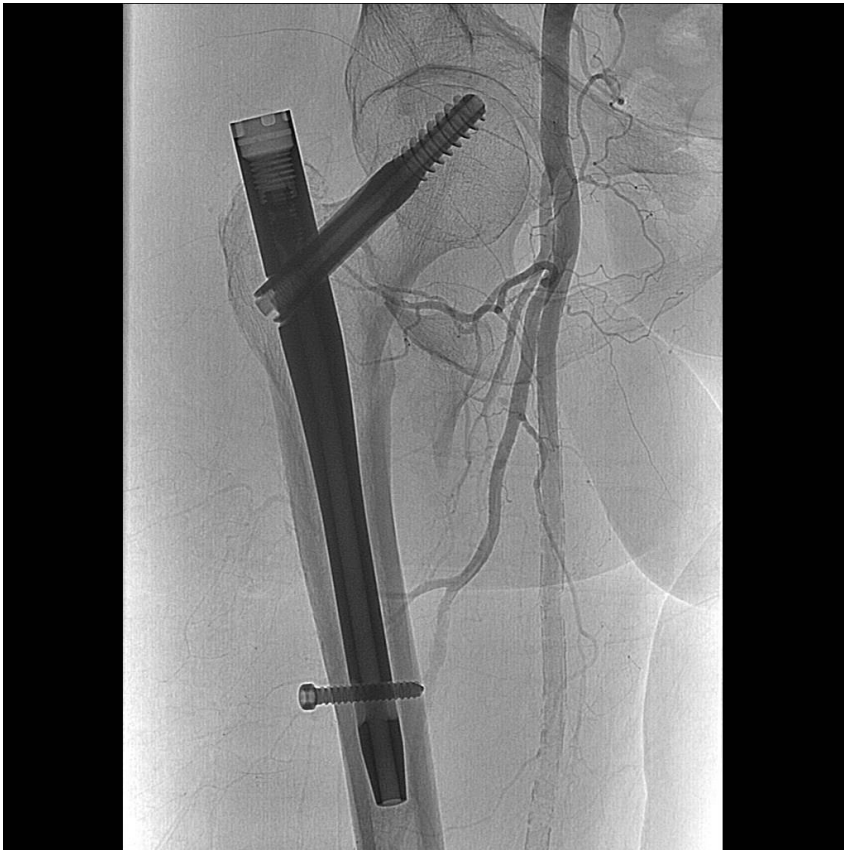
Beeldvormende technieken

- DSA



Beeldvormende technieken

- DSA



Endovasculaire behandeling

- Angiokamer (doorlichting)



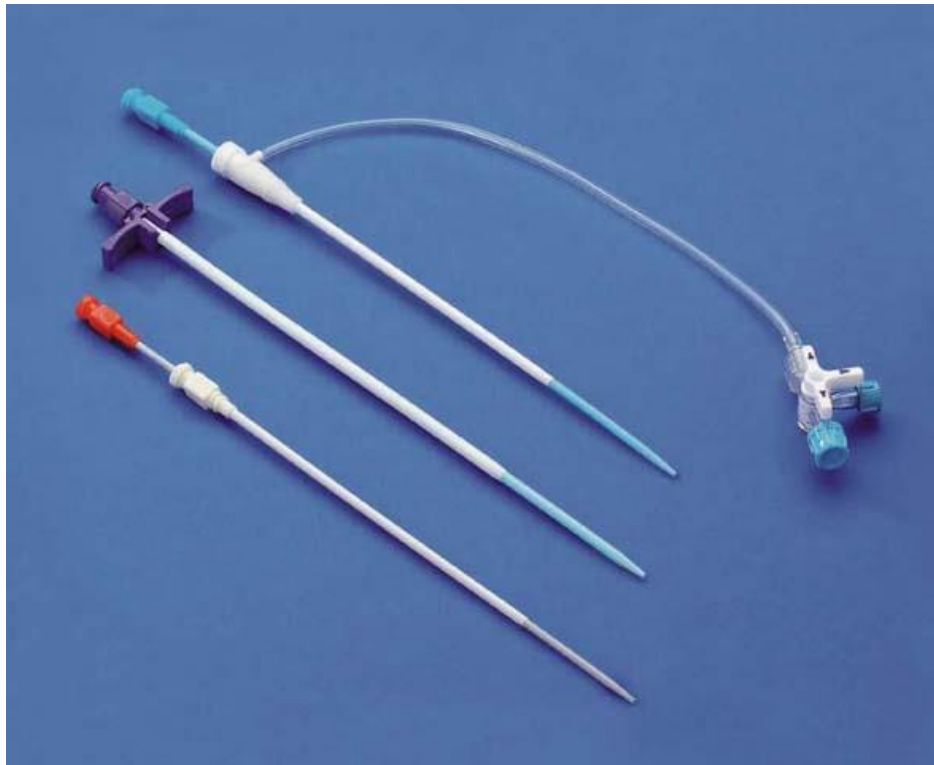
Endovasculaire behandeling

- Steriel afdekken



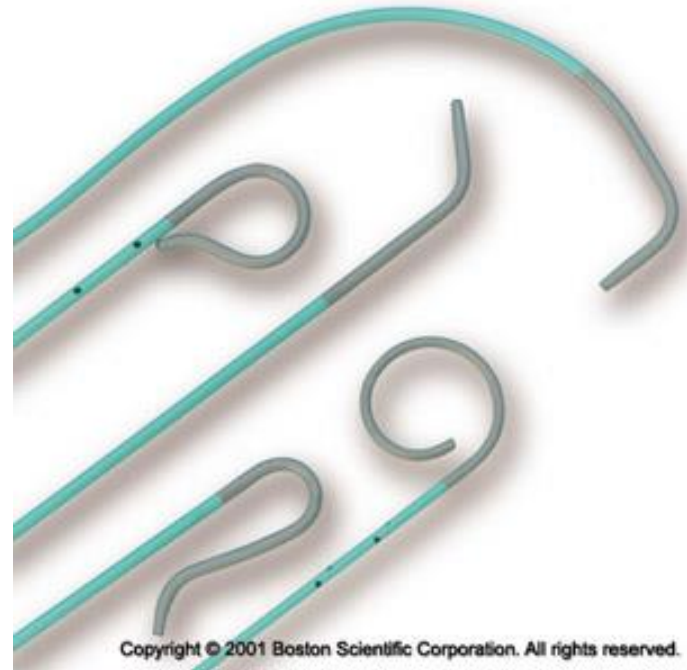
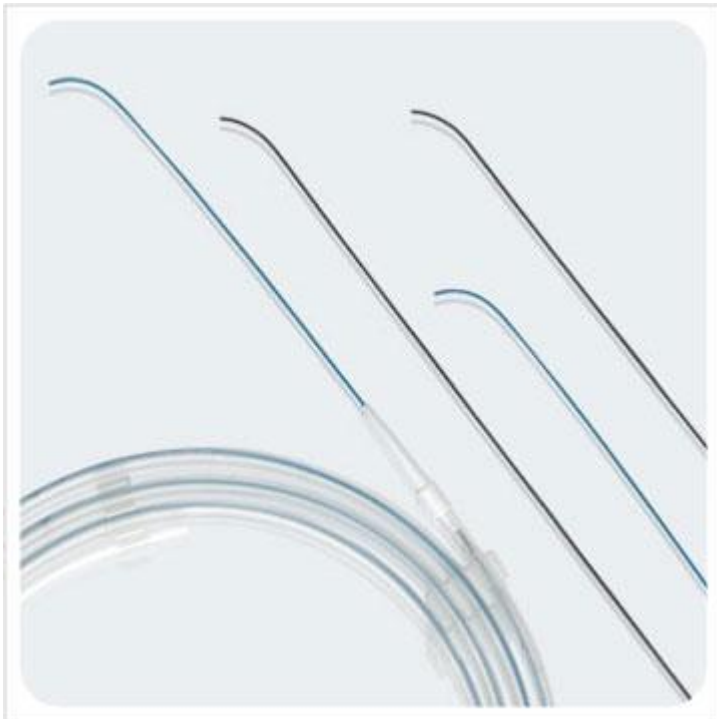
Endovasculaire behandeling

- Verdoven, aanprikken, sheath plaatsen



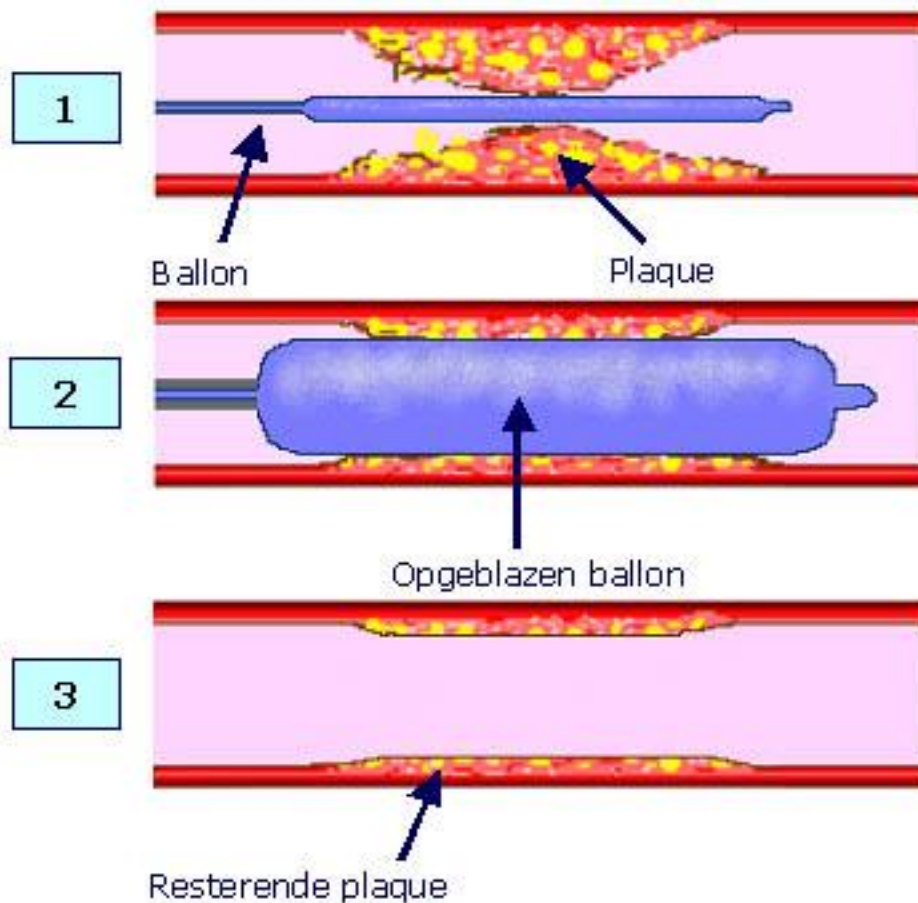
Endovasculaire behandeling

- Voerdraden en katheters



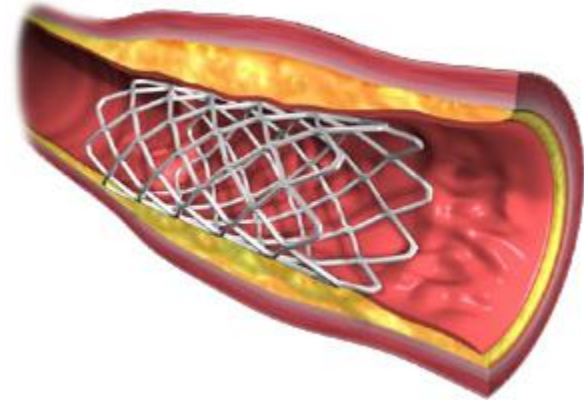
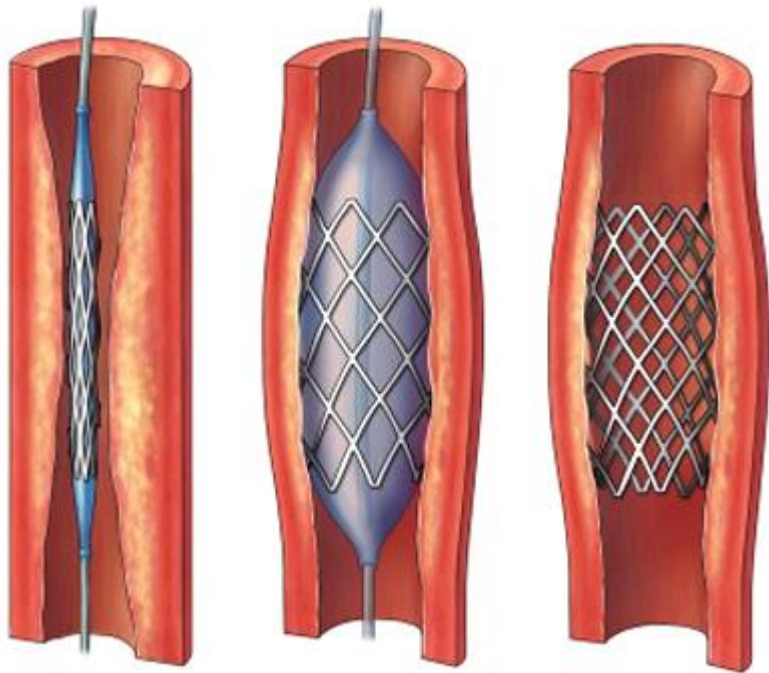
Endovasculaire behandeling

- PTA (dotteren)



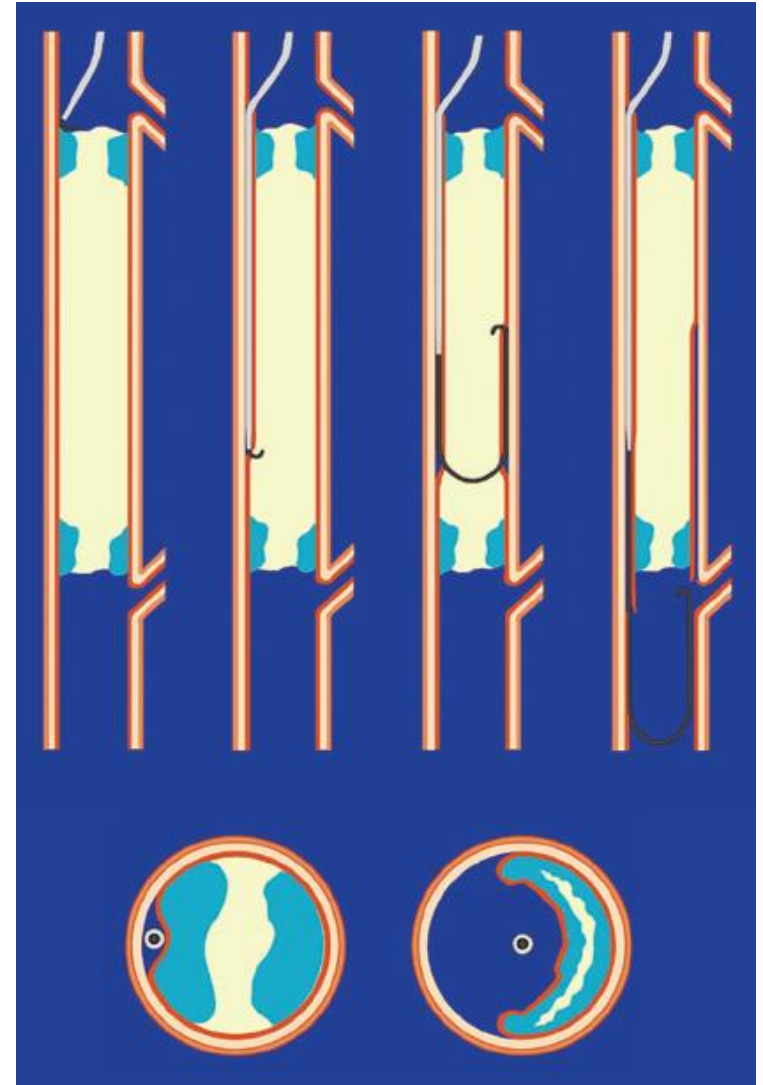
Endovasculaire behandeling

- stents



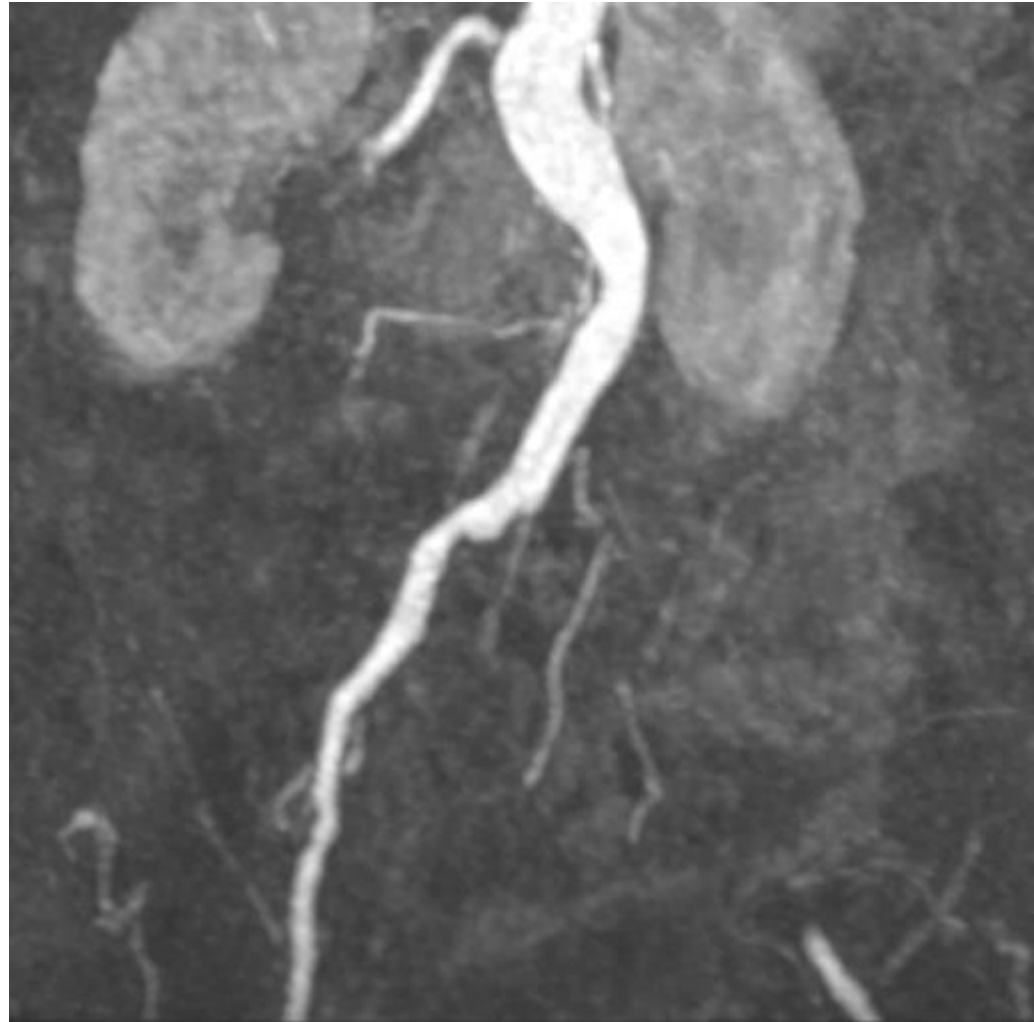
Endovasculaire behandeling

- PIER (percutane intentionele extraluminale rekanalisatie)

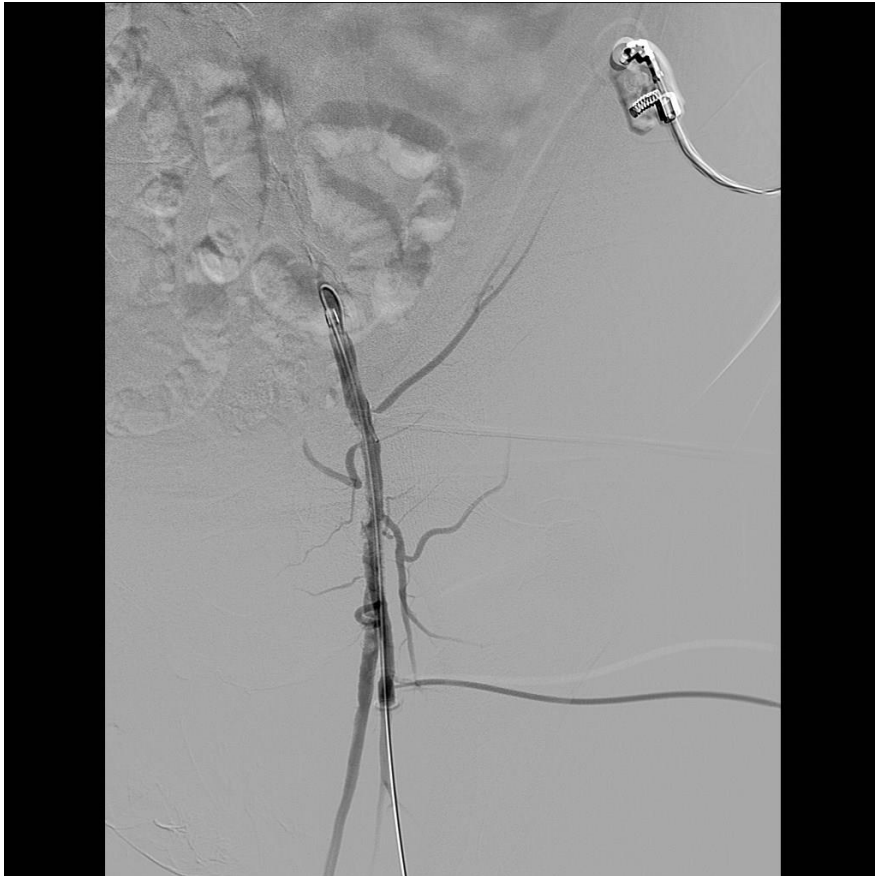


Endovasculaire behandeling

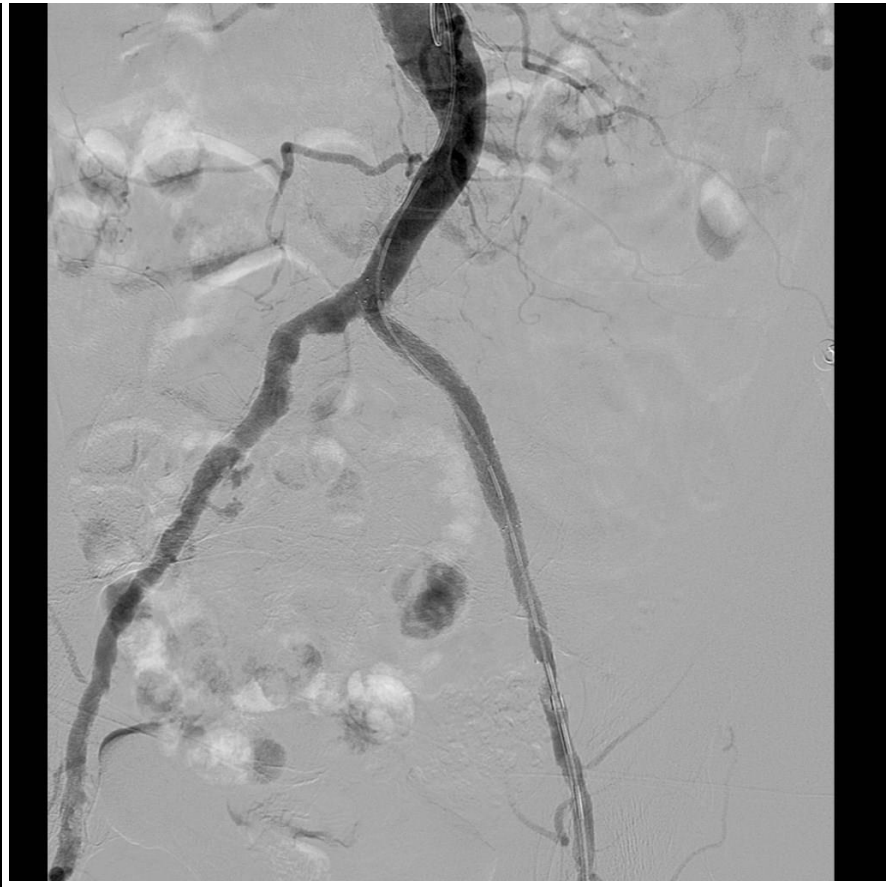
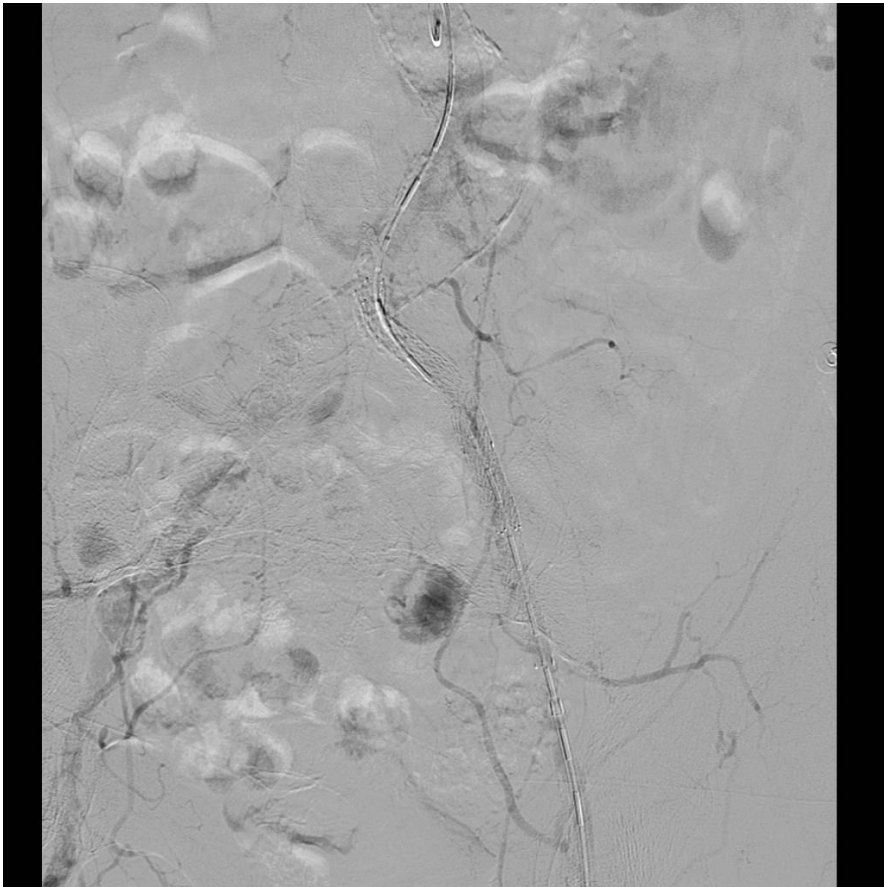
- Casus 1



Endovasculaire behandeling



Endovasculaire behandeling

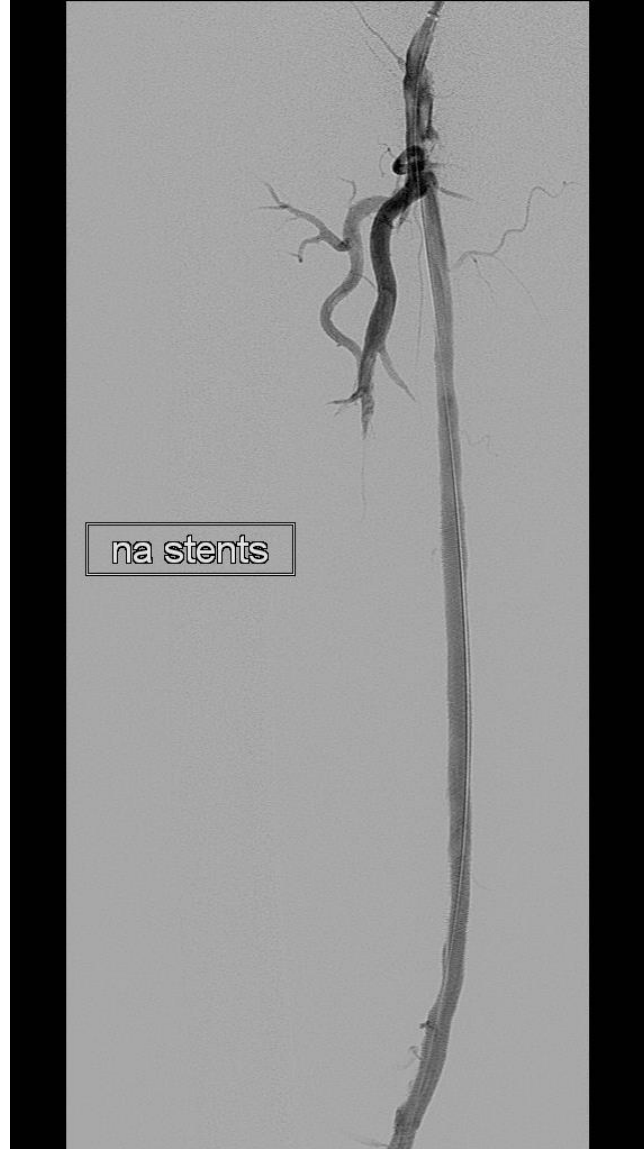


Endovasculaire behandeling

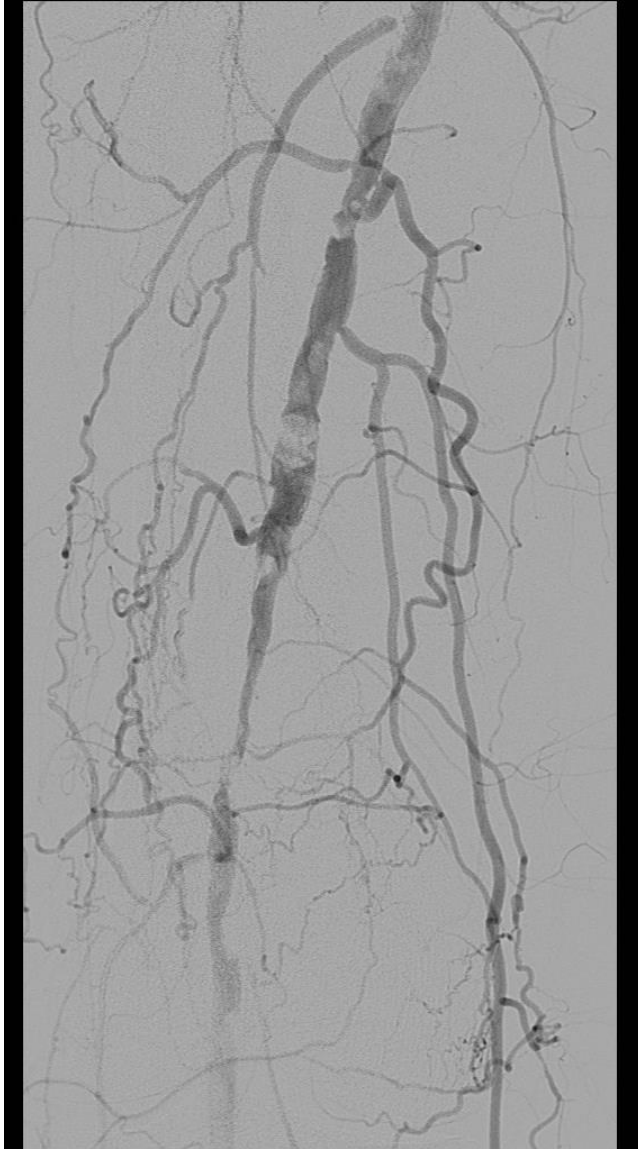
- Casus 2



Endovasculaire behandeling



Endovasculaire behandeling



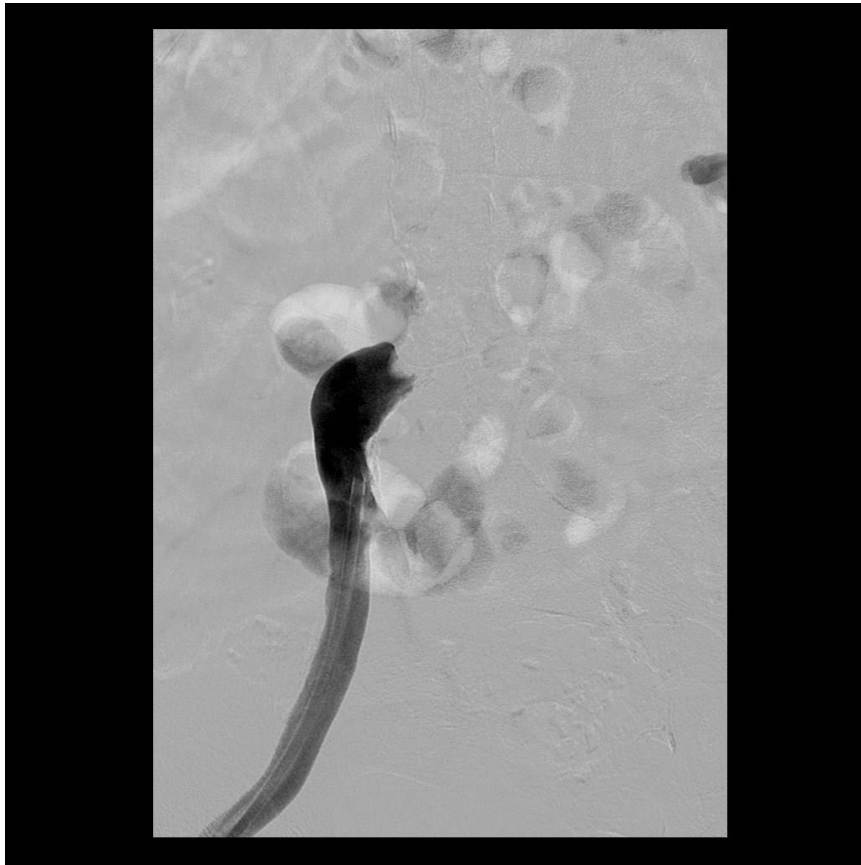
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Endovasculaire behandeling

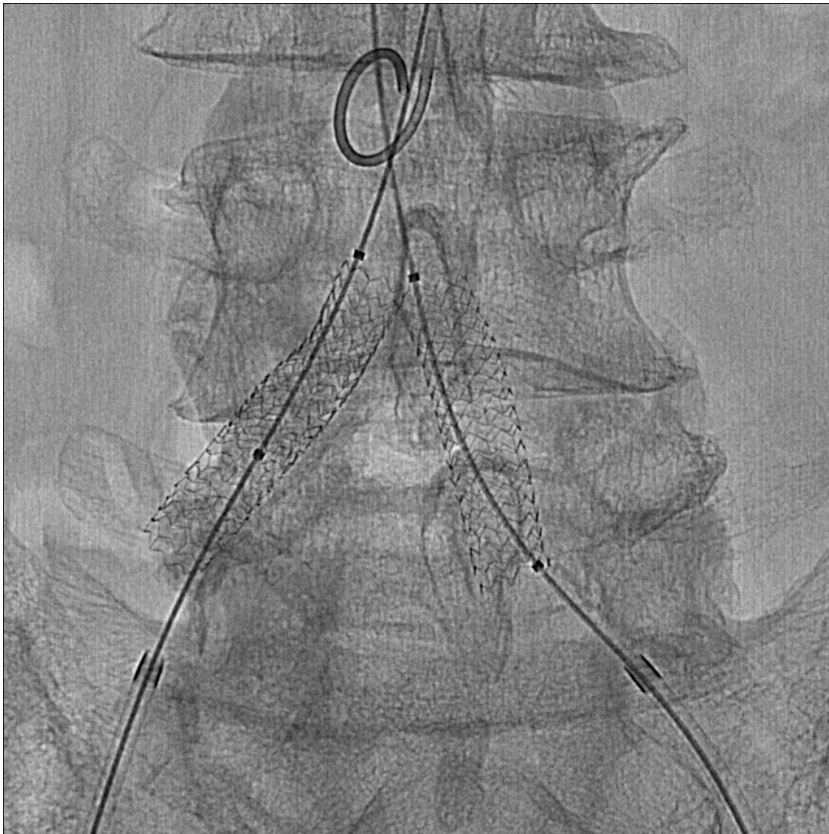
- Casus 3



Endovasculaire behandeling



Endovasculaire behandeling



Take home

- Bij ulcera overweeg PAV F4.
- Overweeg (minimaal) invasieve behandeling
- Enige kennis beeldvormende technieken
- Enige kennis endovasculaire behandeling