Rutherford 4

Clinical Case

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A Fontaine III, Rutherford 4 patient

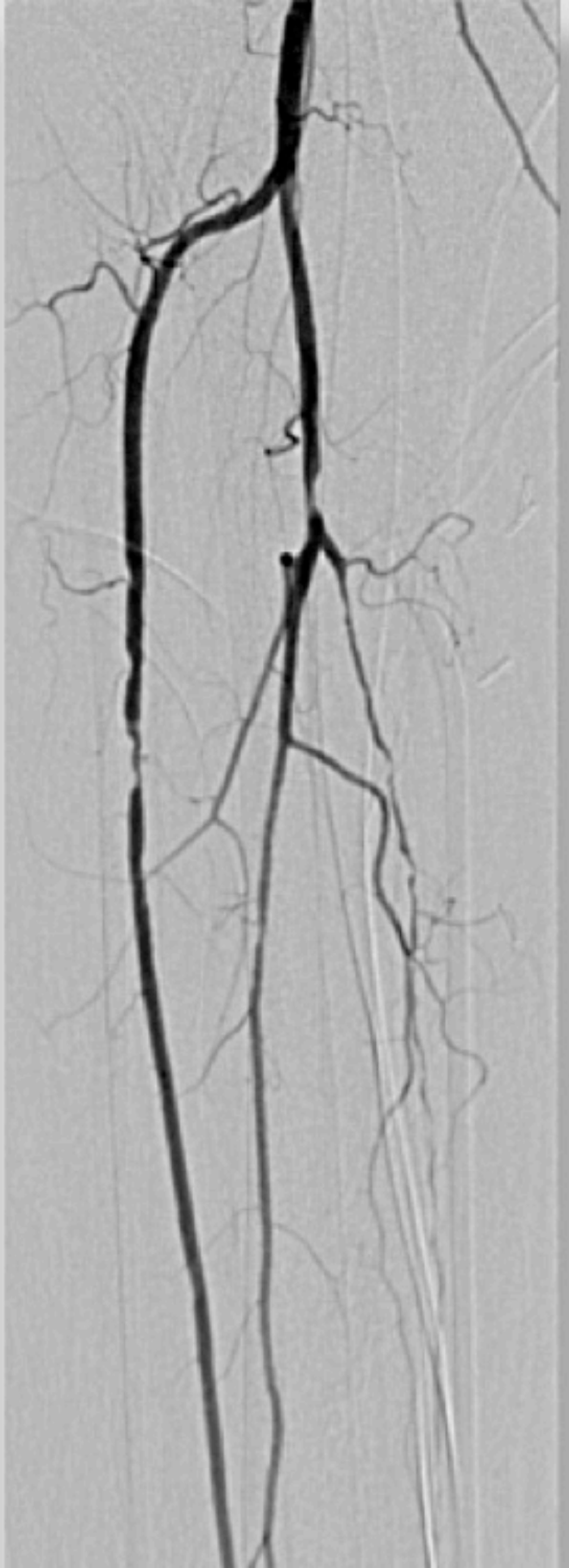
- 63-year-old male
- Type 2 DM (20 yrs)
- Obesity
- CAD (previous AMI, previus CABG x 4)
- LVEF 0.37
- Creatinine 1.7 mg/dL
- Presentation
  - right foot pain at rest
  - absence of pulses
  - $TcPO_2$ 22 mmHg

Clinical features of neuroischemic diabetic foot

SKIN

- Atrophic
- Cool
- Pale or cyanotic
- Erythrosis
- Fissures

Angiographic study



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Is this focal lesion critical?

Does it play a role in the pathophisiology of CLI in this patient?

Eur J Vasc Endovasc Surg (2008) 36, 409–419

Clinical Endpoints in Peripheral Endovascular Revascularization Trials: a Case for Standardized Definitions

N. Diehm [a,*], P.M. Pattynama [b], M.R. Jaff [c], A. Cremonesi [d], G.J. Becker [e], L.N. Hopkins [f], F. Mahler [a], A. Talen [g], J.F. Cardella [h], S. Ramee [i], M. van Sambeek [j], F. Vermassen [k], G. Biamino [d]

The DEFINE Group is a collaborative effort of an ad-hoc multidisciplinary team from various specialties involved in PAD therapy in Europe and the USA

Hemodynamic significance of a lesion:

"Intra-arterial digital subtraction angiography indicating 50% diameter stenosis by visual estimation or by quantitative vessel analysis software *assessing at least two different angiographic projections*."


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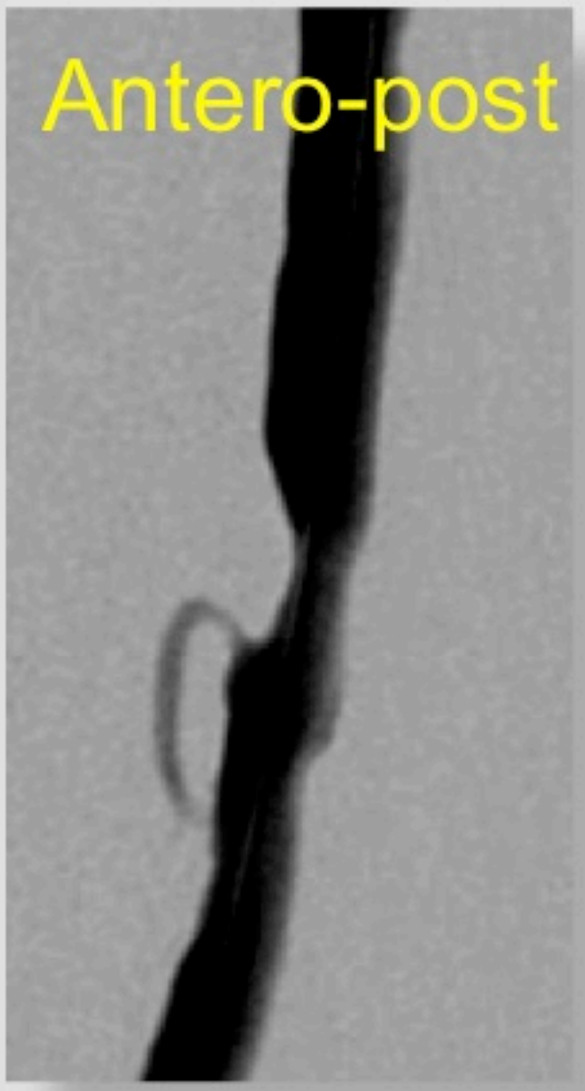
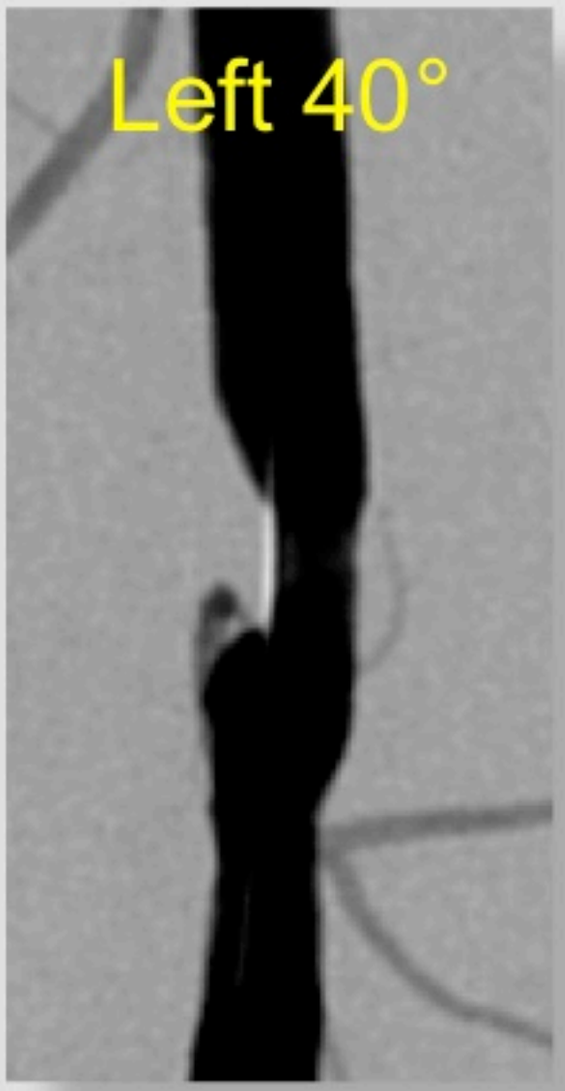
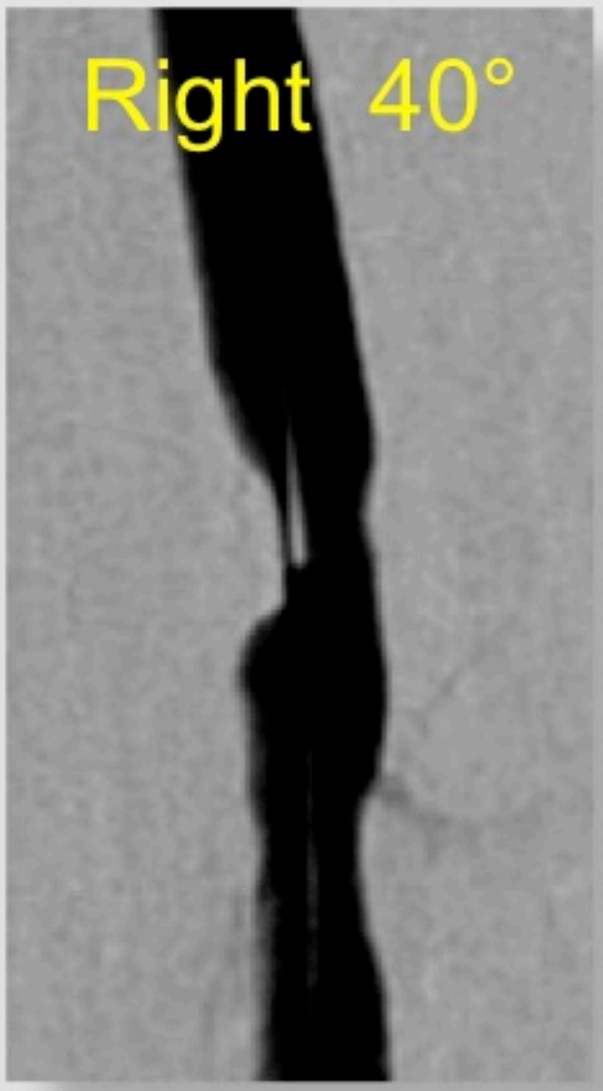
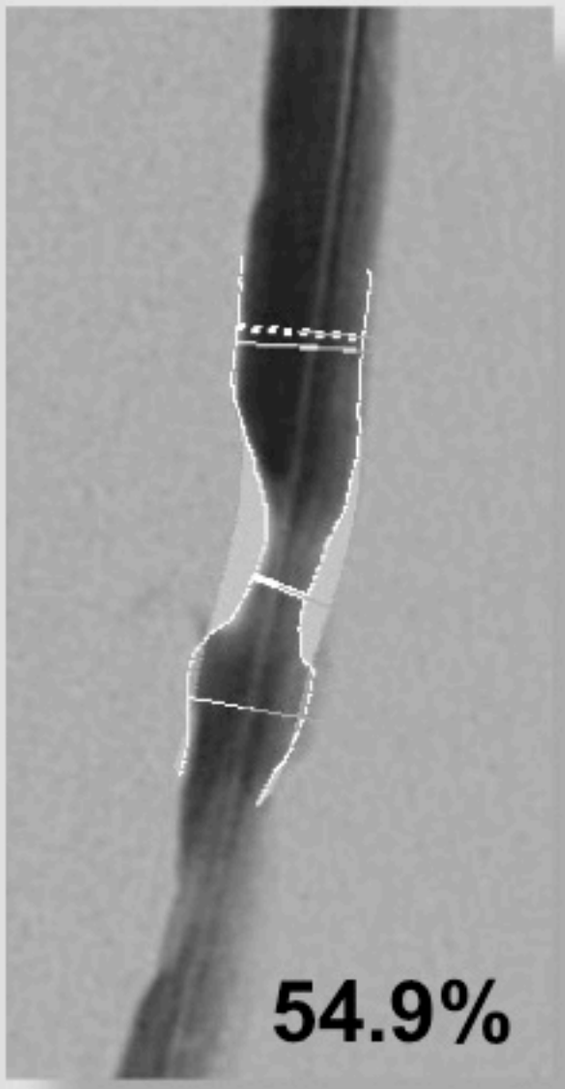
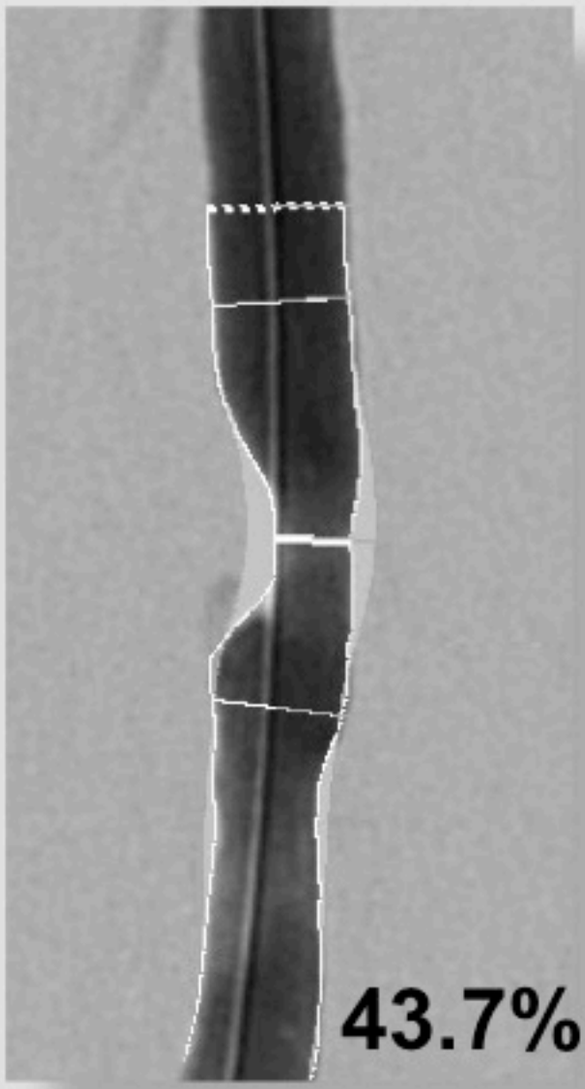
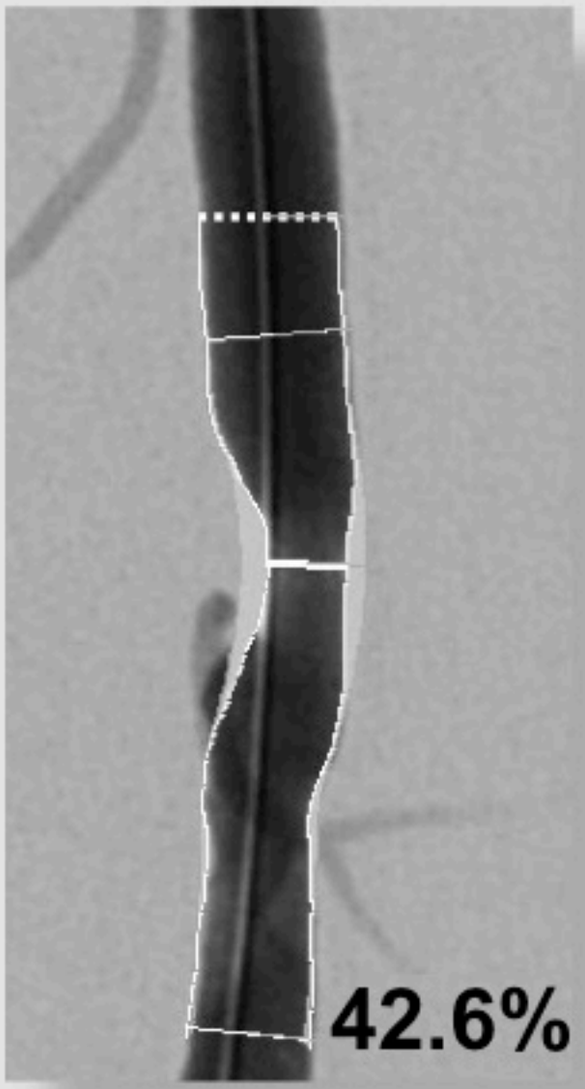

Antero-post


Left 40°


Right 40°







Hemodynamic significance of a lesion:

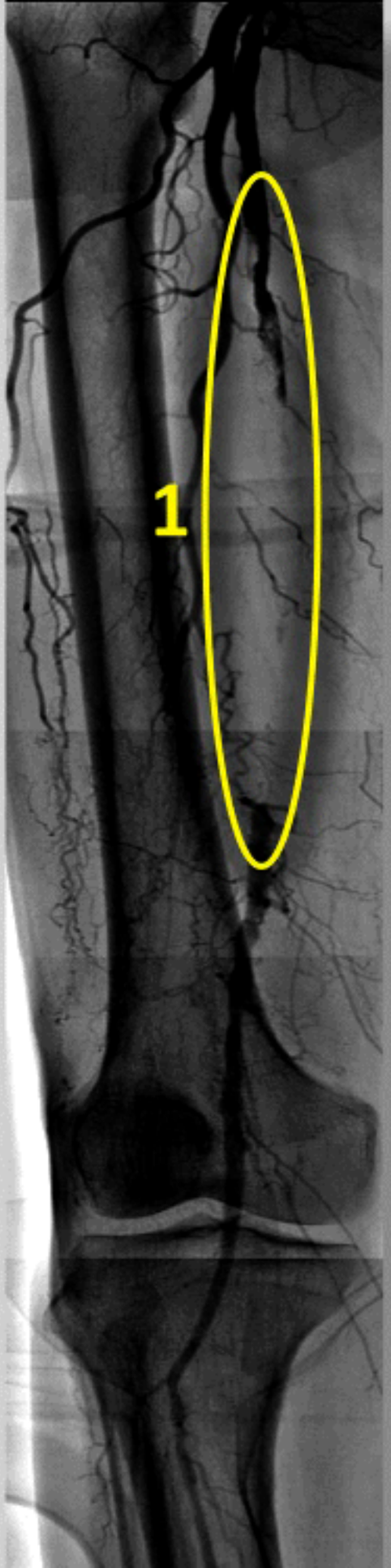
"Intra-arterial digital subtraction angiography indicating 50% diameter stenosis by visual estimation or by quantitative vessel analysis software *assessing at least two different angiographic projections*."

Is this focal lesion critical?

Does it play a role in the pathophisiology of CLI in this patient?

This is not a hemodynamically significant lesion.

This lesion has no role in the pathophisiology of CLI in this patient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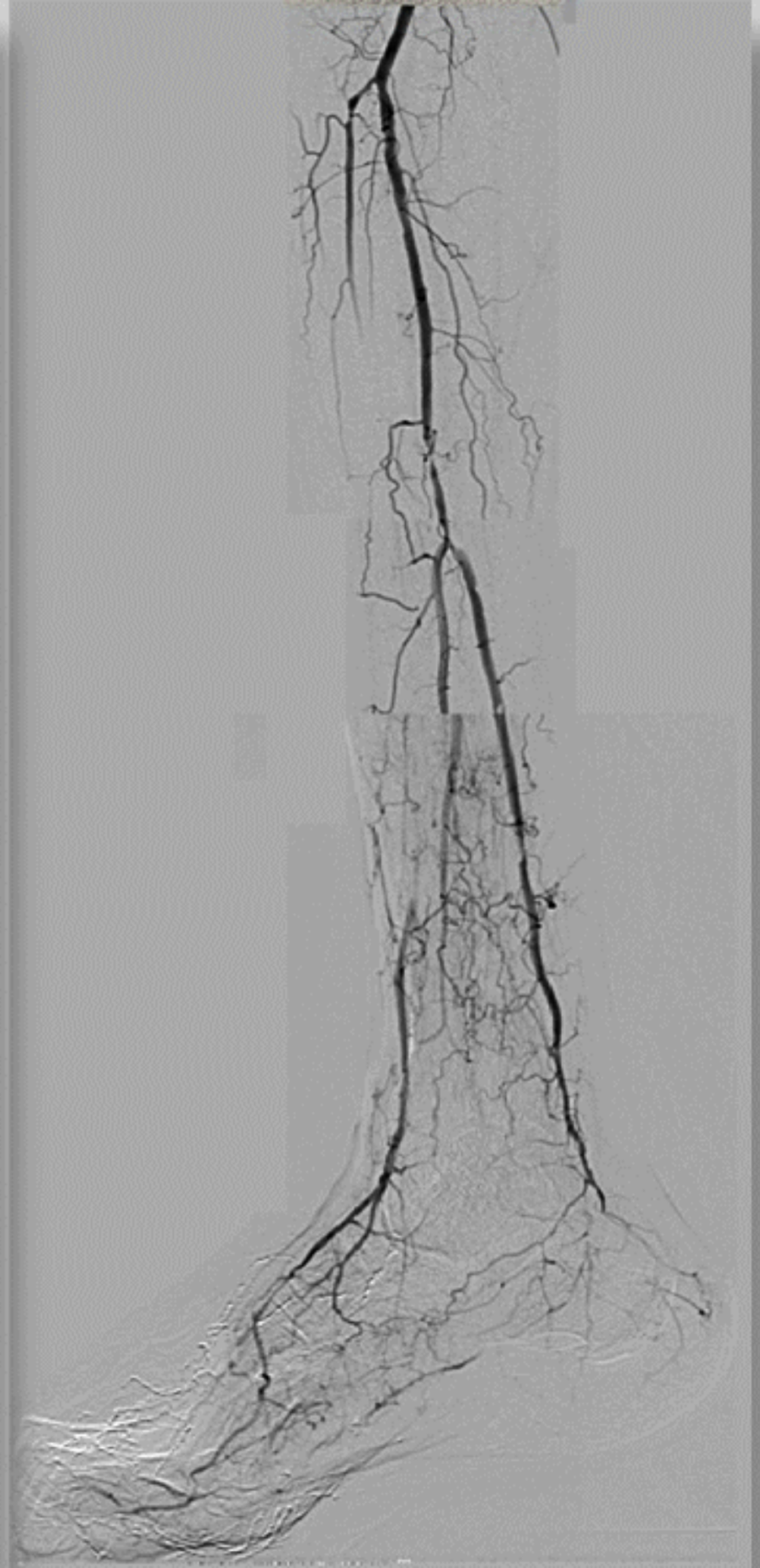

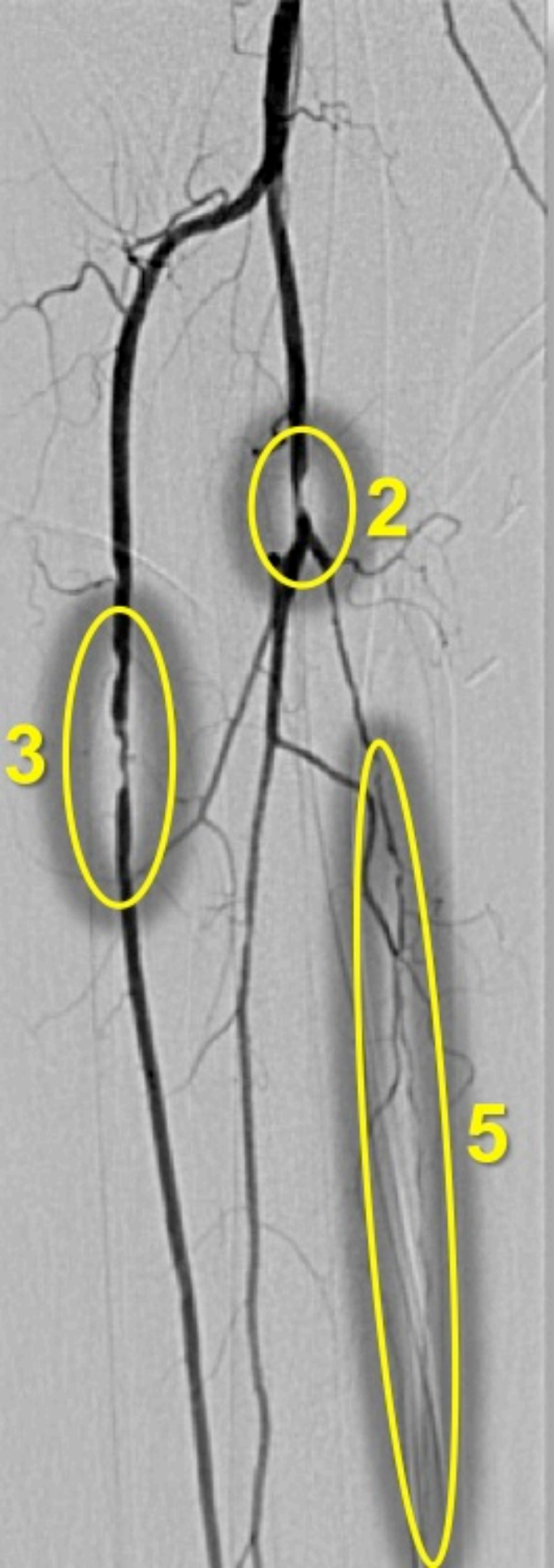
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Treatment

basal

after DEB

3.5 x 20 mm

after BMS

3.5 x 18 mm

final result

3

basal

DEB
3 x 40 mm

after
DEB

after nitinol
self-
expandable
stent
4 x 40 mm

4

basal

DEB
2.5 x 120 mm

after
DEB


5

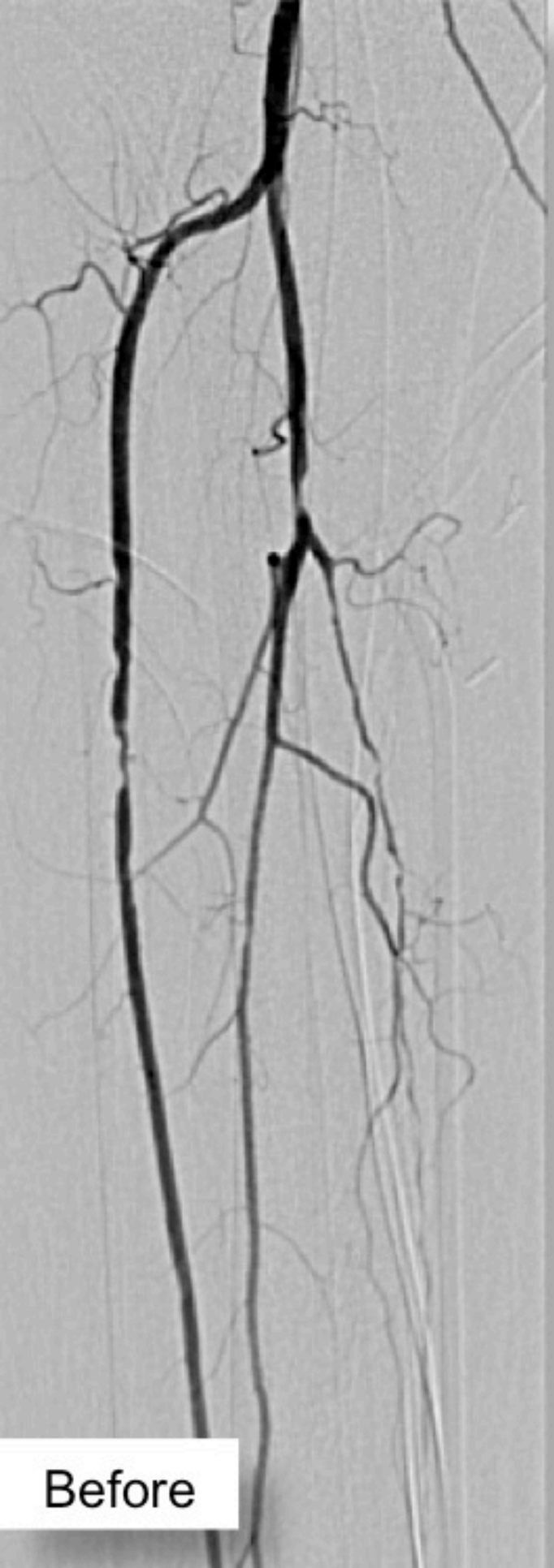

5
6

1. **Fontaine III, Rutherford 4, no tissue lesions:** our target is to improve the global blood flow to the foot; we have no “local targets” (wound-related artery, angiosome concept, etc). We opened two direct flow lines to the foot, AT and PER arteries; this is sufficient to keep the limb asymptomatic.

2. **Comorbidity** (CAD, LV dysfunction, impaired renal function): a short procedure means less stress, less contrast dye, fewer complications

3. **Costs:** the total cost of our procedure was 3,386 €. In Italy stents and DEB are not reimbursed.

Final result


Before


After

Before

After

Follow-up

1. Immediate relief of pain after the procedure

2. After 2 weeks $TcPO_2$ 48 mmHg

3. At 5 months the patient is asymptomatic

How to prevent foot damages in ischemic diabetic feet

- Periodical control visits

- Skin protection

- Proper in-side and out-side protective insole and shoes