

CARDIOVASCULAR SUMMIT
TCTAP 2015

Lower Extremity Intervention:
Challenge and Endeavor for CTO

Practical Application of Plain Balloon vs. DEB or Stent in BTK

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Italy

Step-By-Step Approach for CTO

- ❑ Antegrade approach

1. Intraluminal

2. Subintimal

Failure?

- ❑ Retrograde puncture

- ❑ Transcollateral

1. Pedal-plantar loop technique

2. Peroneal artery branches PTA

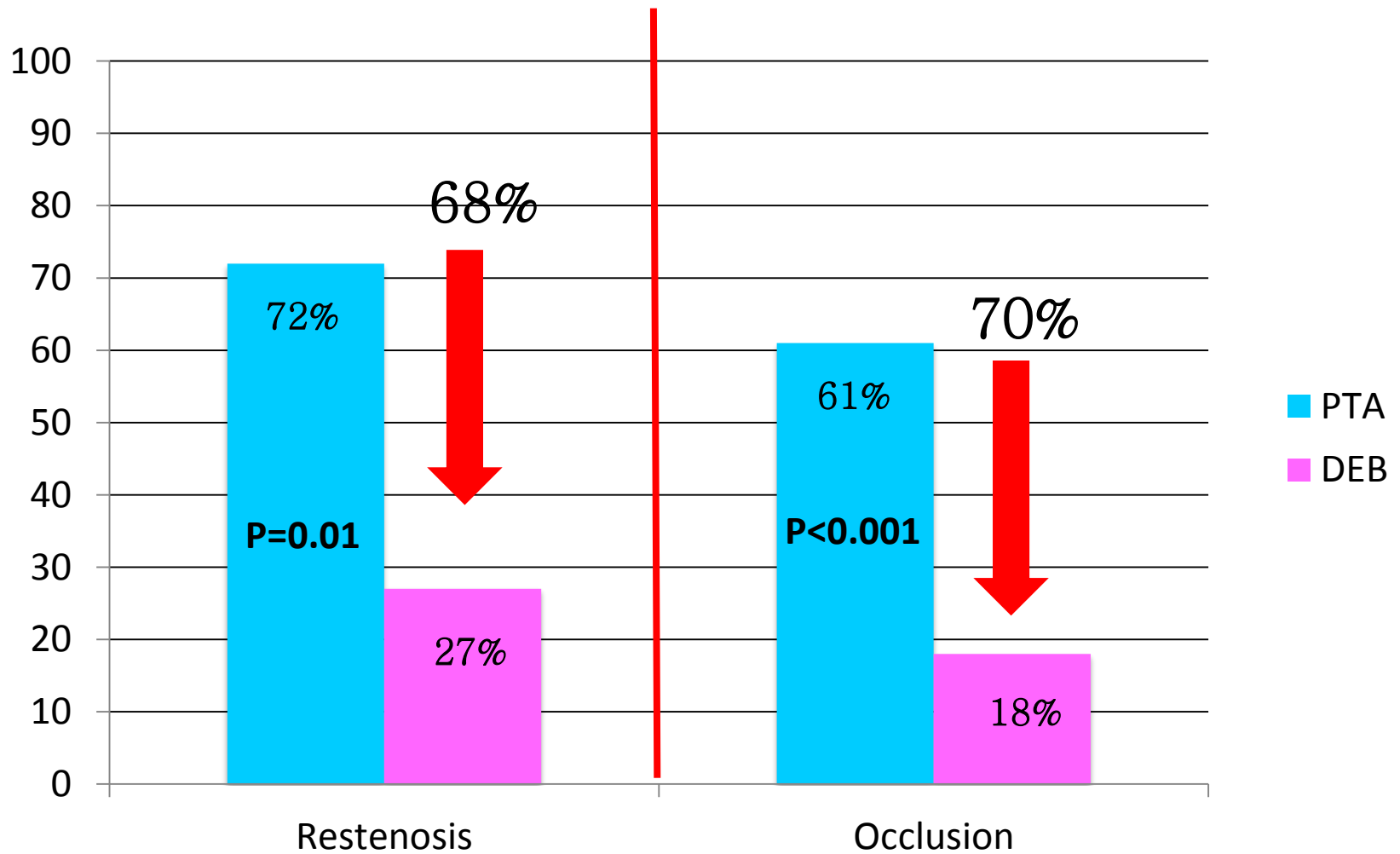


Below the Knee Intervention

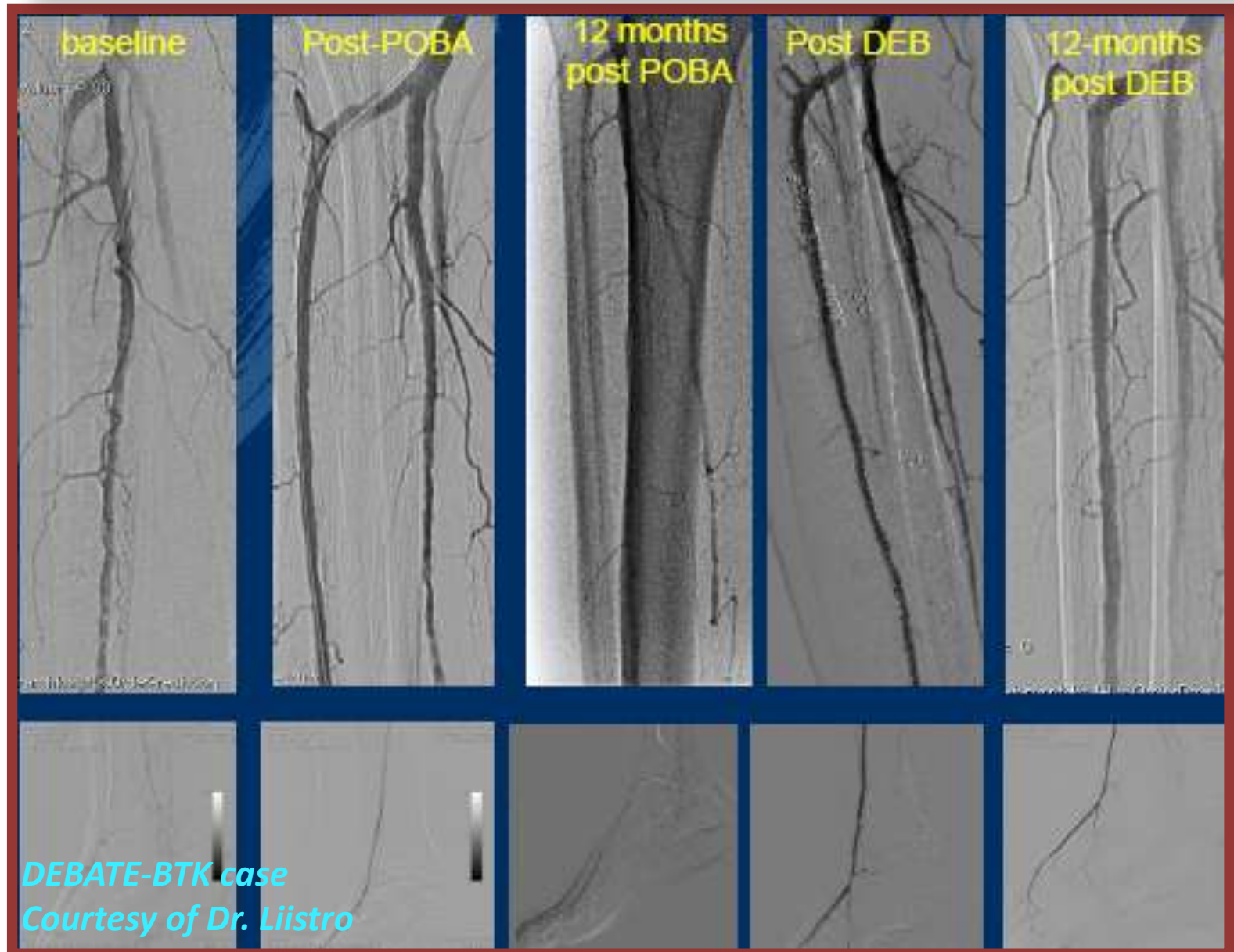
How to Apply DCB in BTK

- **Disparate results among investigations**
- **Costs related to DCBs**
- **Technical limitations of first-generation devices**

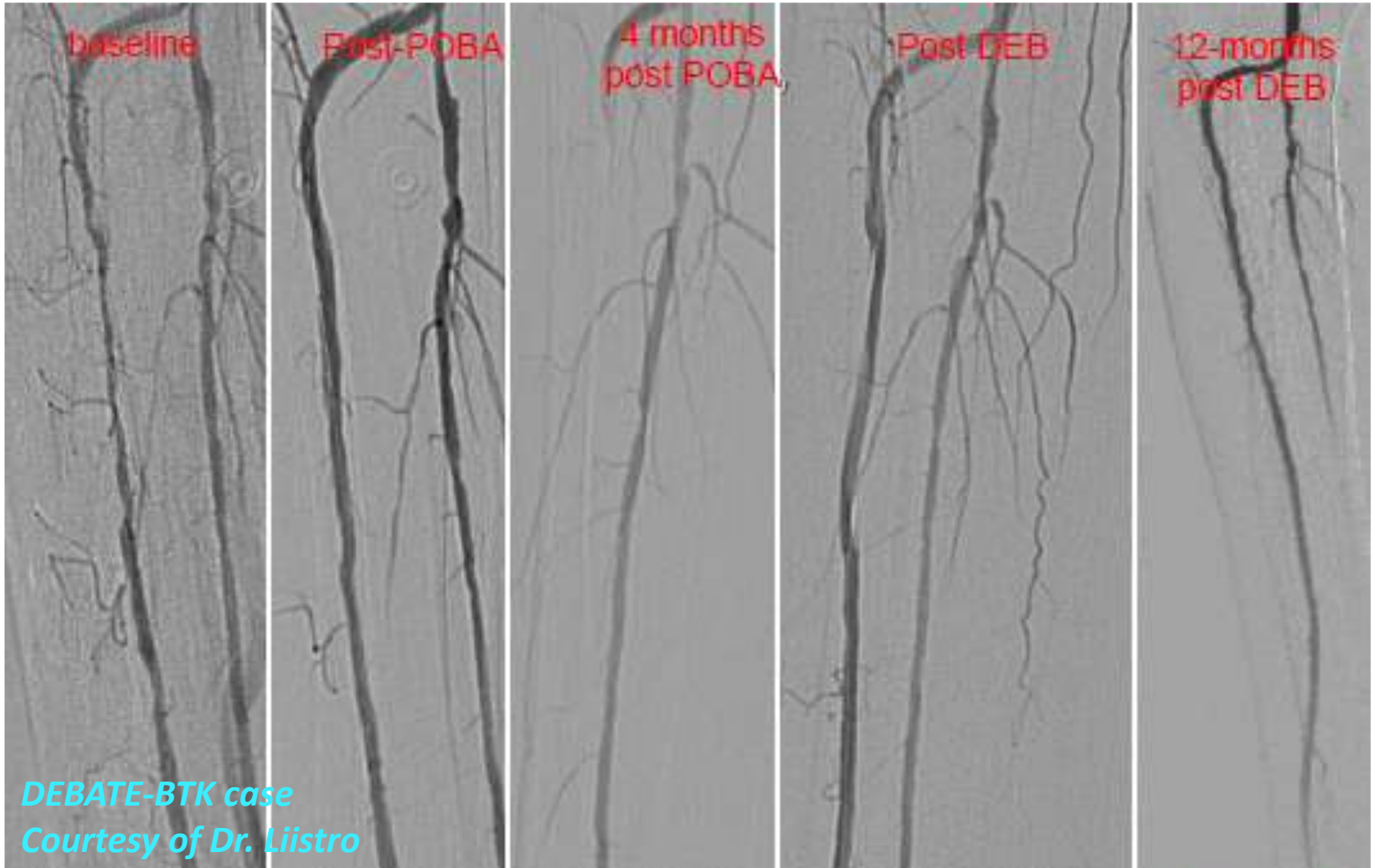
Restenosis / Occlusion in Totally Occluded Vessels



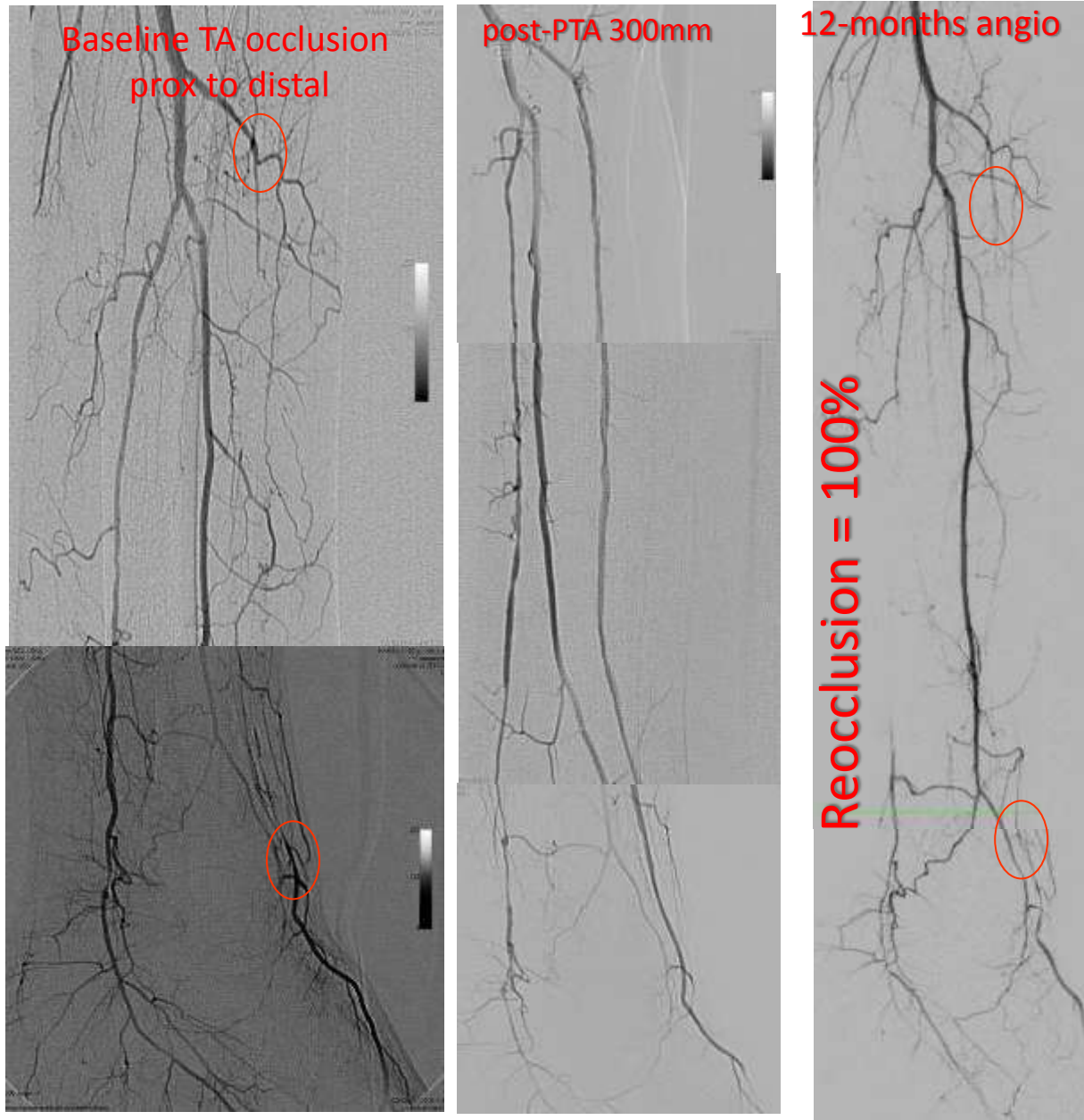
Occlusive Restenosis after POBA



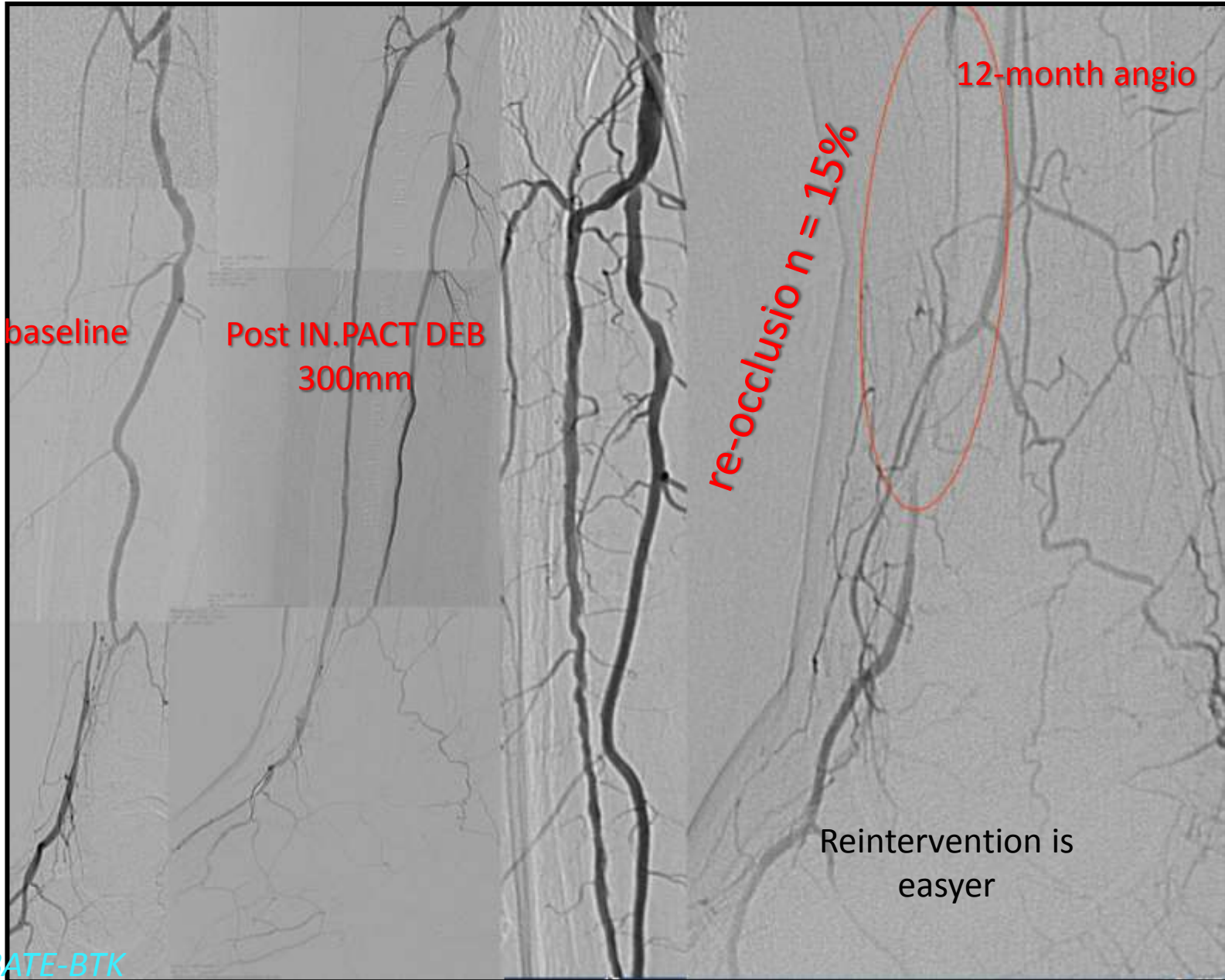
Occlusive Restenosis after POBA



POBA and Pattern of re-occlusion



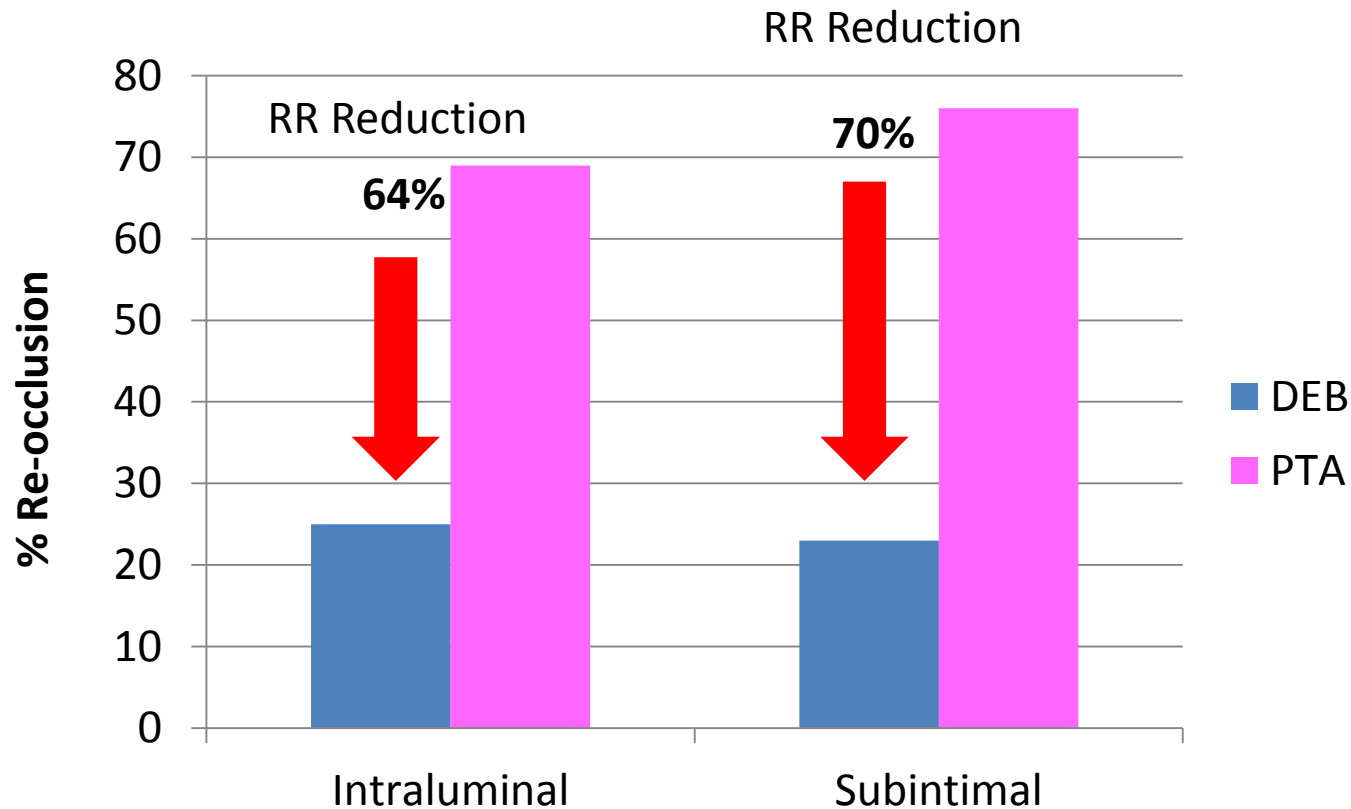
DEB and Pattern of re-occlusion



DEBATE-BTK Study

Intraluminal vs. Subintimal Recanalization

Restenosis rate at 12 months



Step-By-Step Approach for CTO

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CTO Treatment
Trans-Collateral Approach

Pedal-Plantar Loop Technique

Why the pedal-plantar loop technique?

Diffuse disease of the foot vessels

Baseline angio



Baseline angio



Diffuse disease of the foot vessels

Pedal-plantar loop



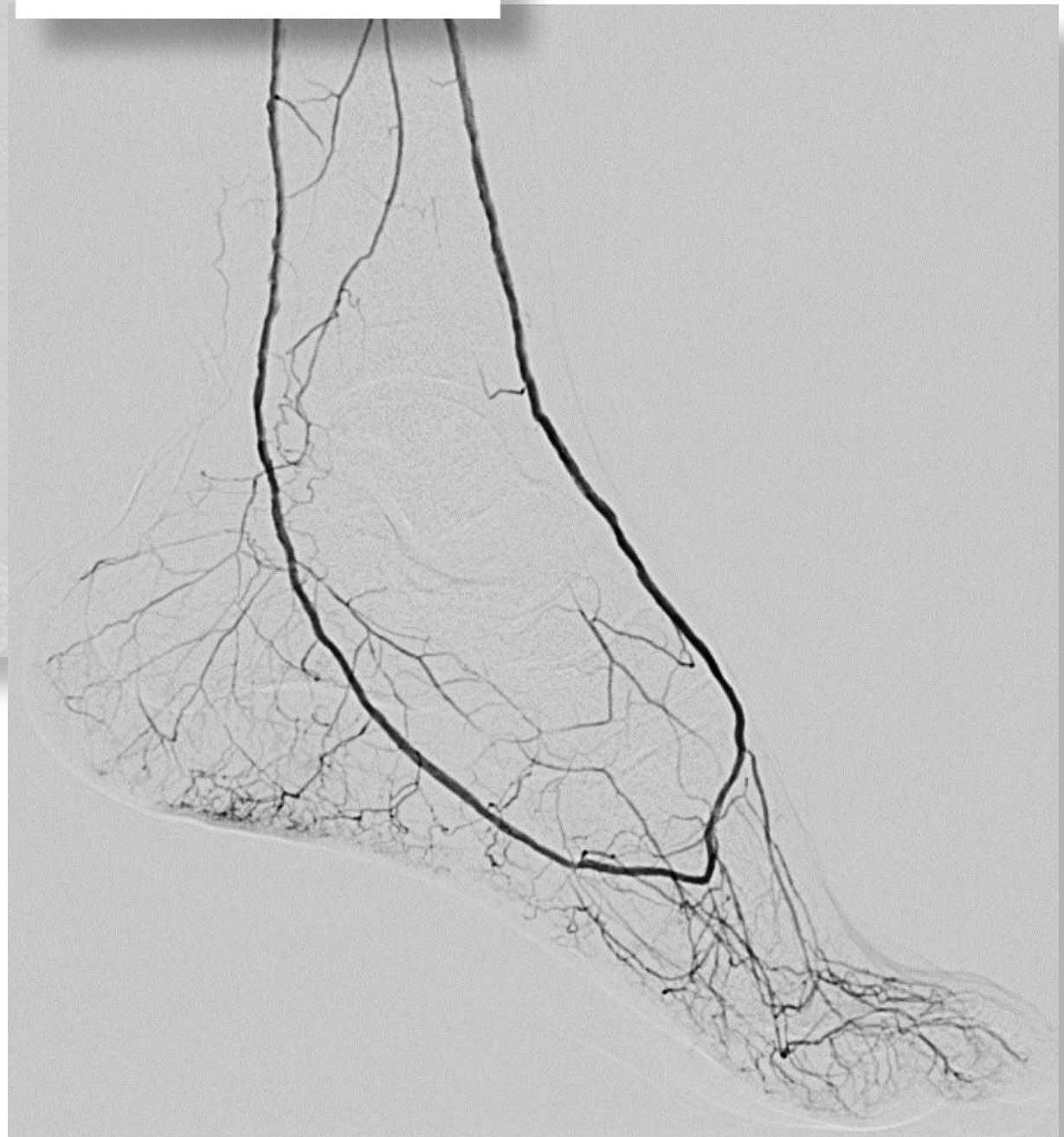
Final DEB treatment



Final result



Final result



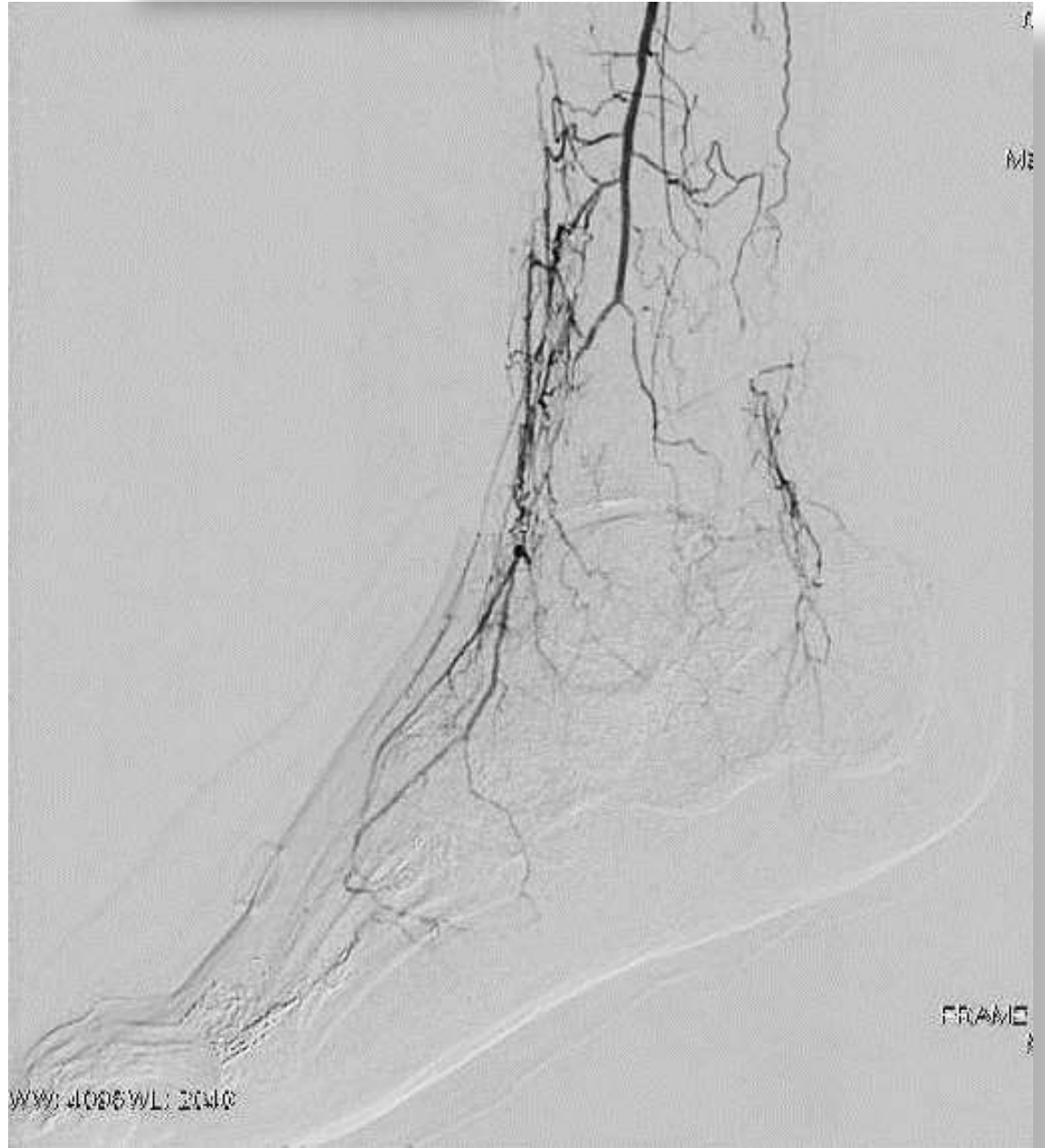
Why the trans-collateral approach?

Impossible to open ATA.

Baseline angio



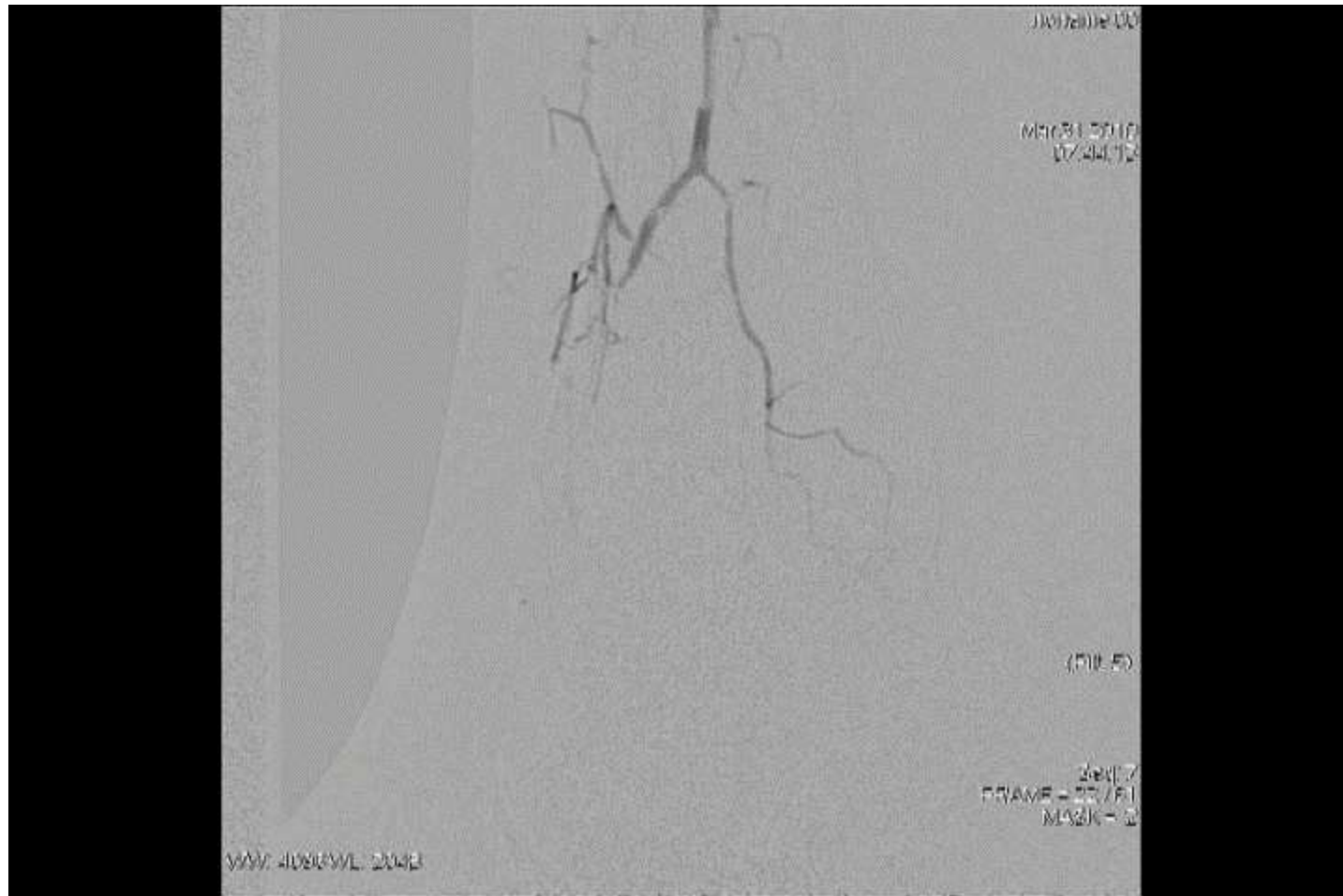
Baseline angio



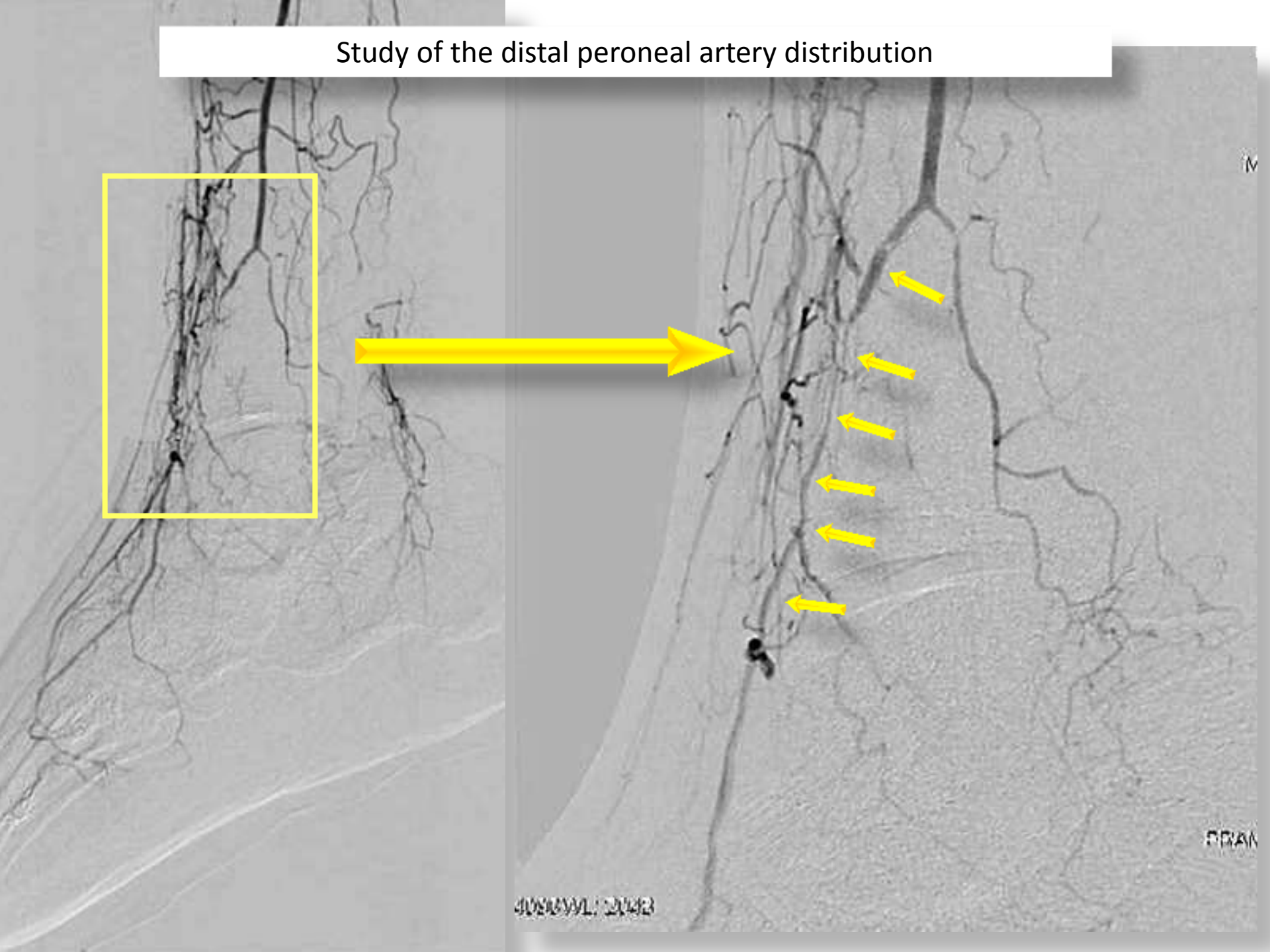
Failure of ATA treatment



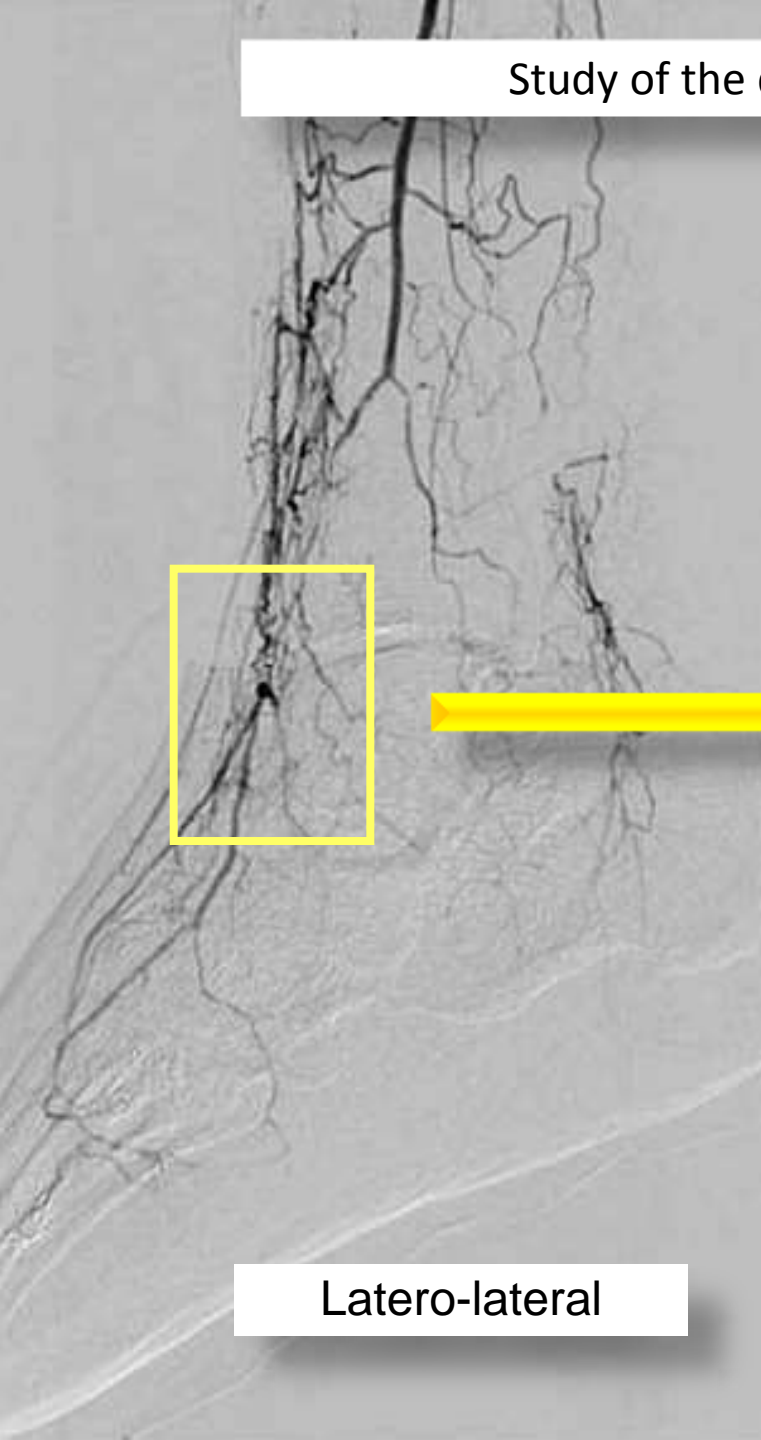
Study of the distal peroneal artery distribution



Study of the distal peroneal artery distribution



Study of the distal peroneal artery distribution



Latero-lateral

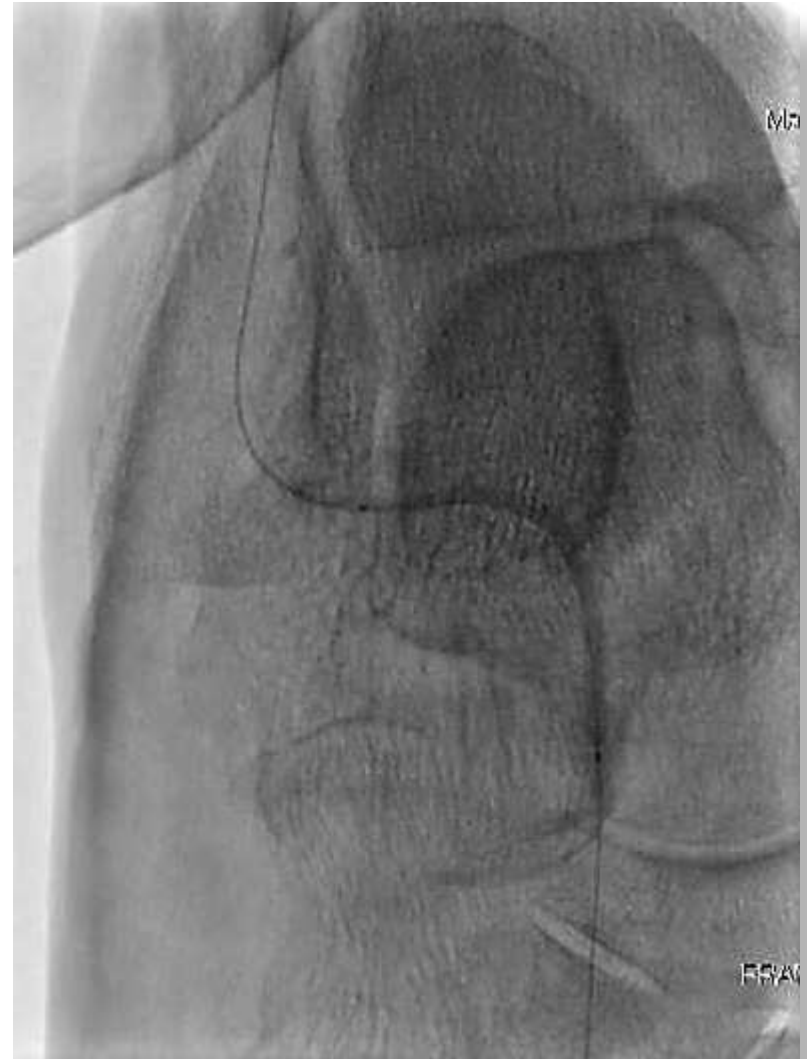


Antero-posterior

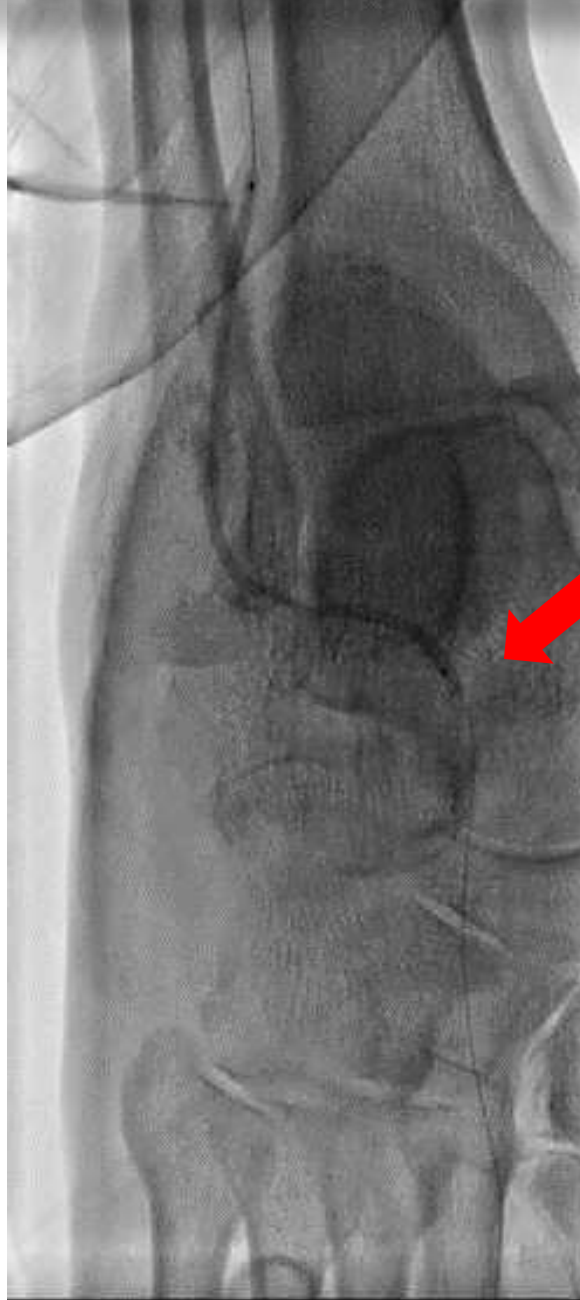
Pre-dilatation: 1.5x20 mm, 0.014", low profile balloon



Final dilatation: 2.0x40 mm, 0.014", low profile balloon



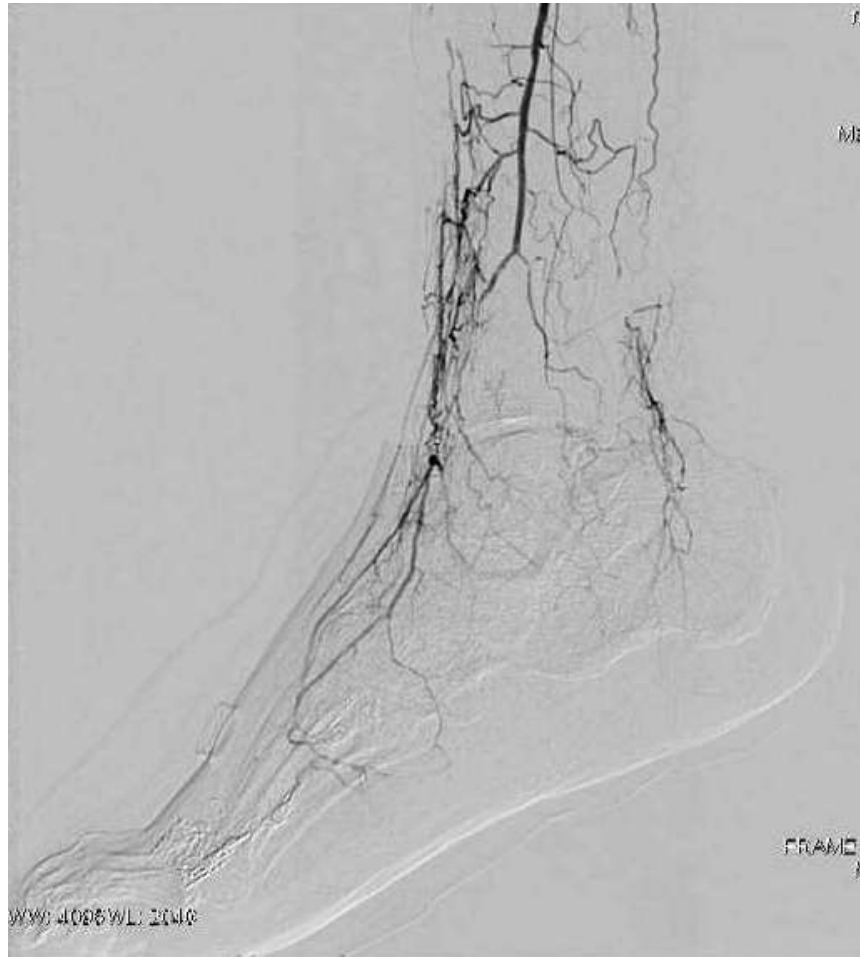
Final DEB treatment: 2.0x80 mm



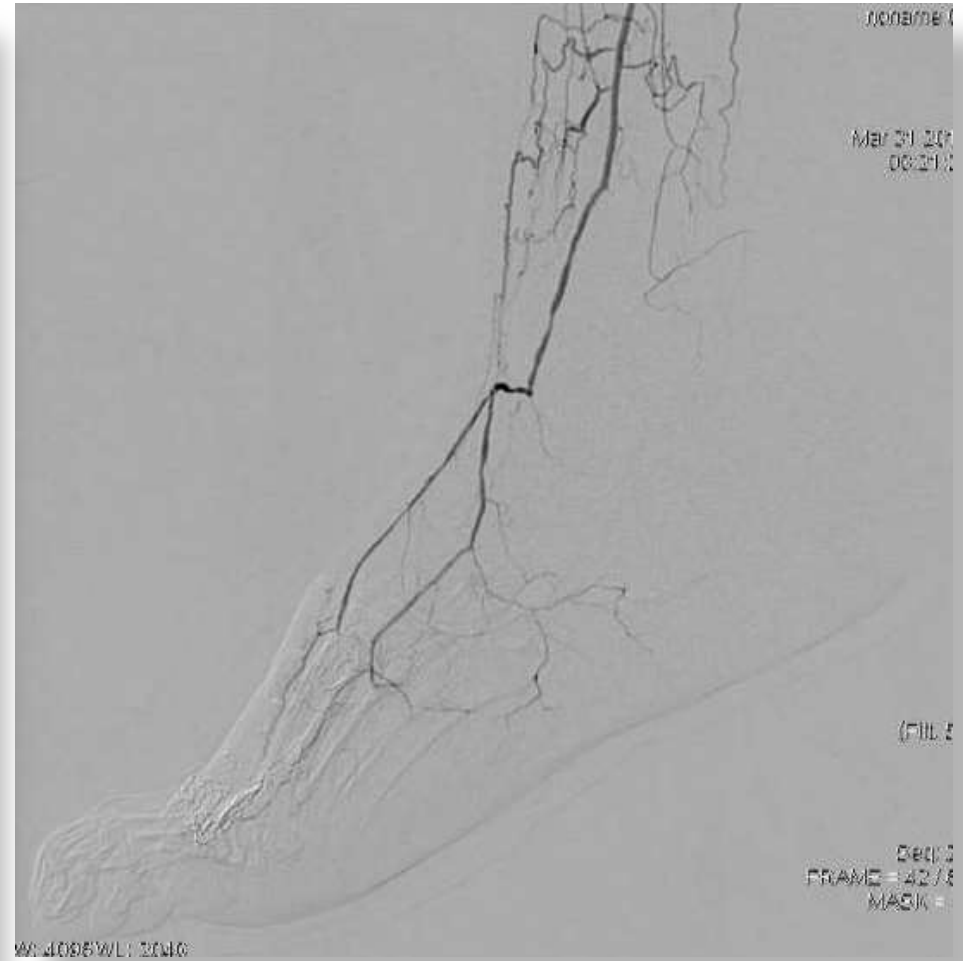
Final result



Baseline angio



Final result



Specific Subgroups

BTK PTA in Patients with Chronic Dialysis

Endovascular treatment of patients with chronic dialysis is technically challenging because:

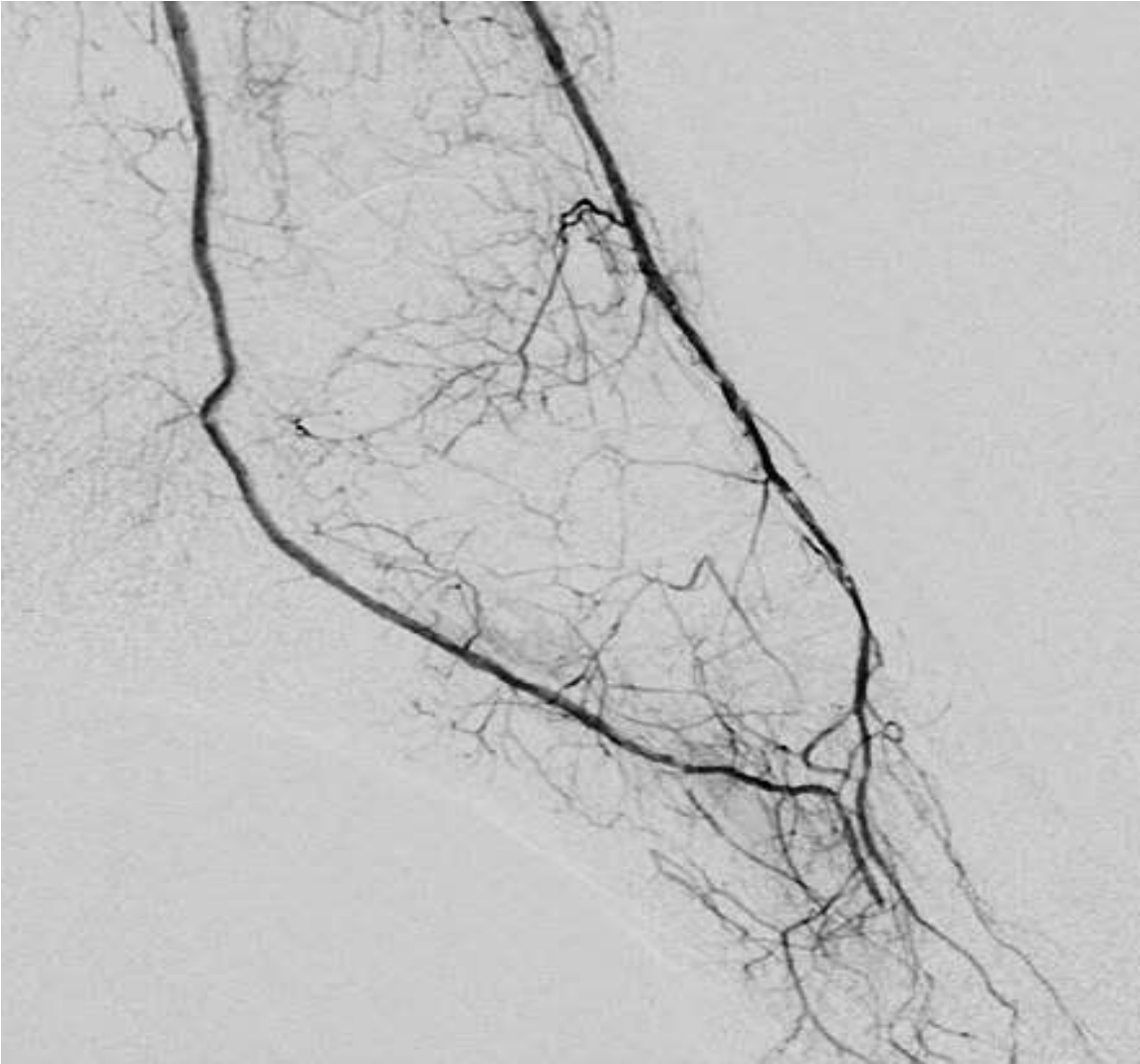
- The prevalent localization of lesions in distal vessels with diffuse disease and poor run-off
- The calcified nature of the lesions
- The presence of very tight stenoses that make the crossing very problematic

Baseline angio





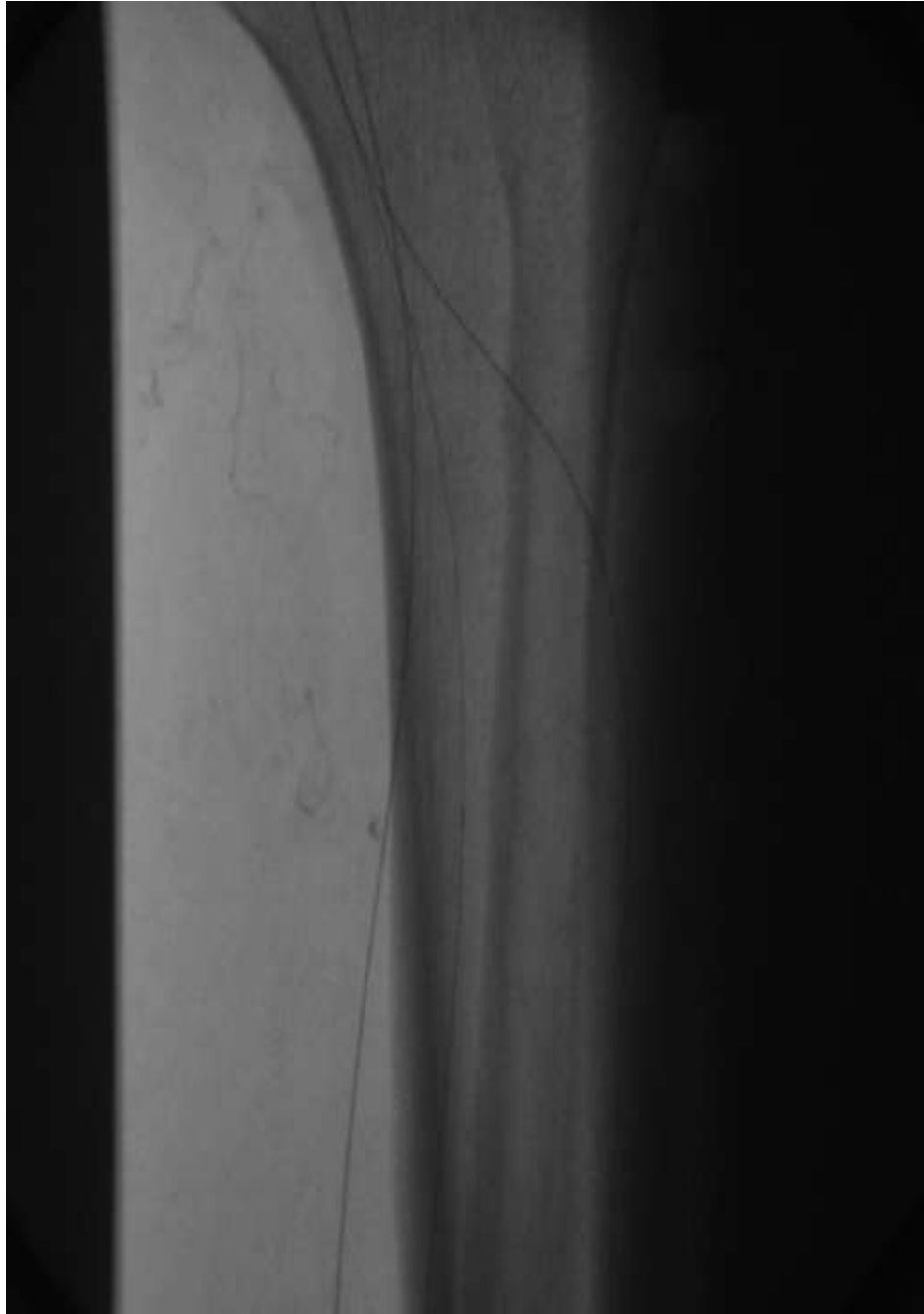
Final result



CTO Treatment

Elective Stenting

Stenting is used very rarely and is usually reserved only for bail-out situation!!

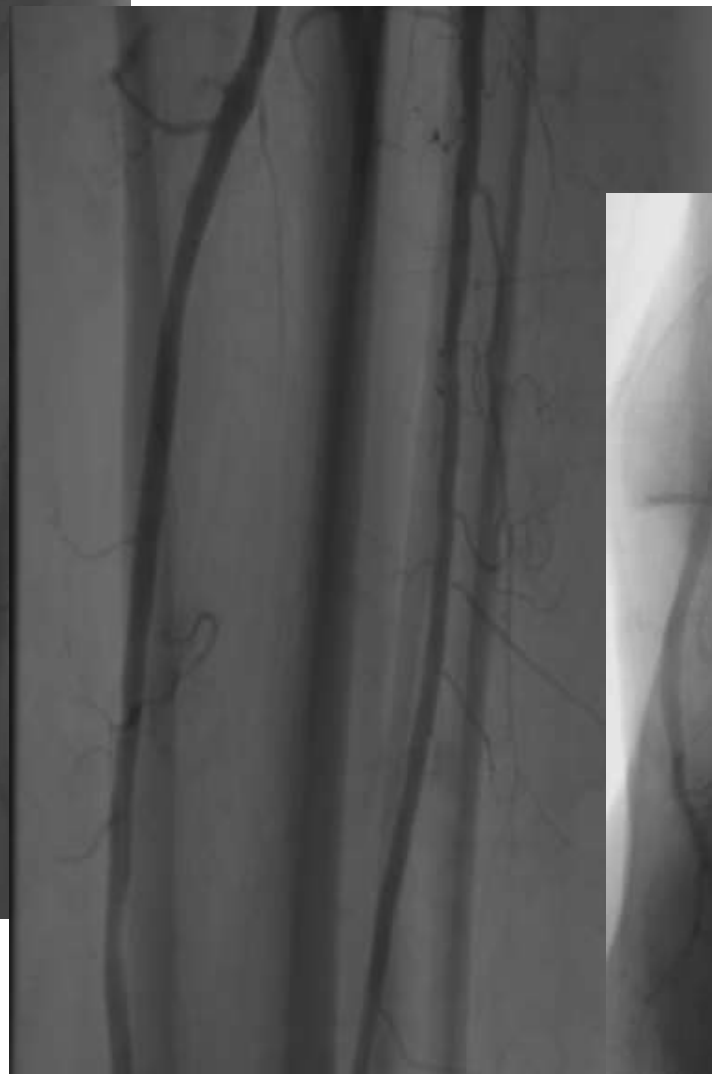
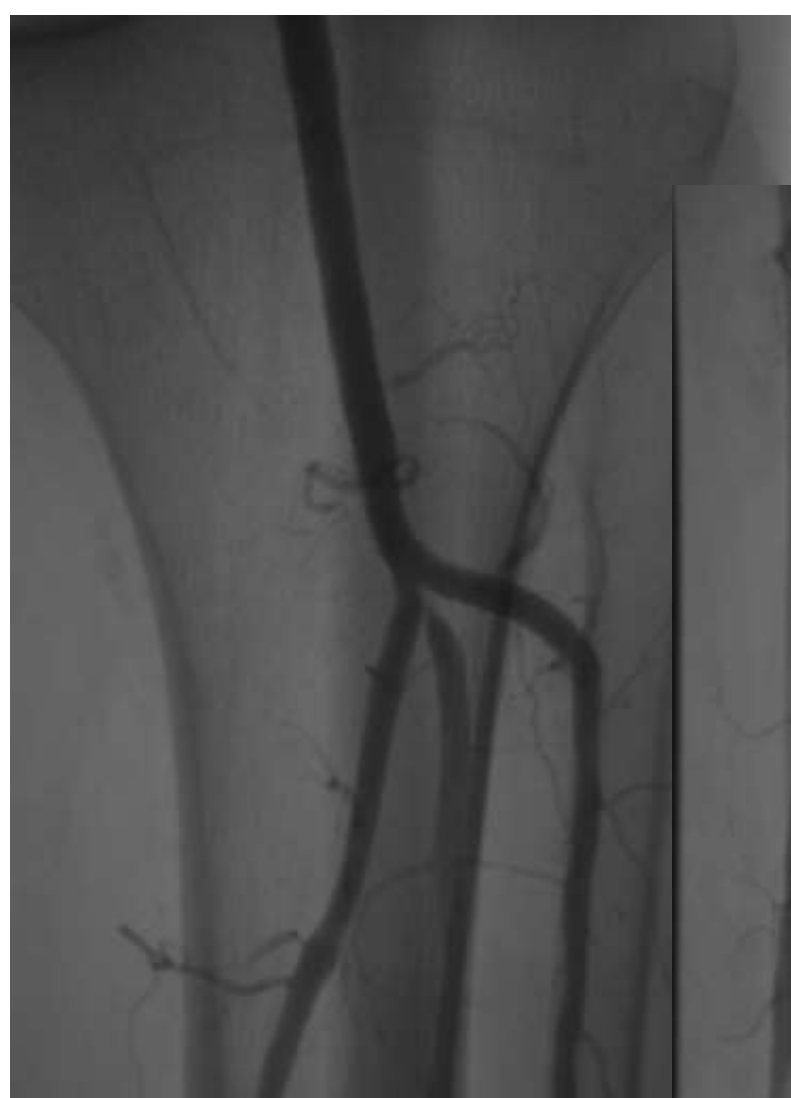








Final result



Lower Extremity Intervention
Practical Application of POBA vs. DEB or Stent

Conclusions

- **POBA: remains the standard approach**
- **DCB: considered for high-risk lesions**
- **STENT: only for bail-out situations**