

Acute result optimization

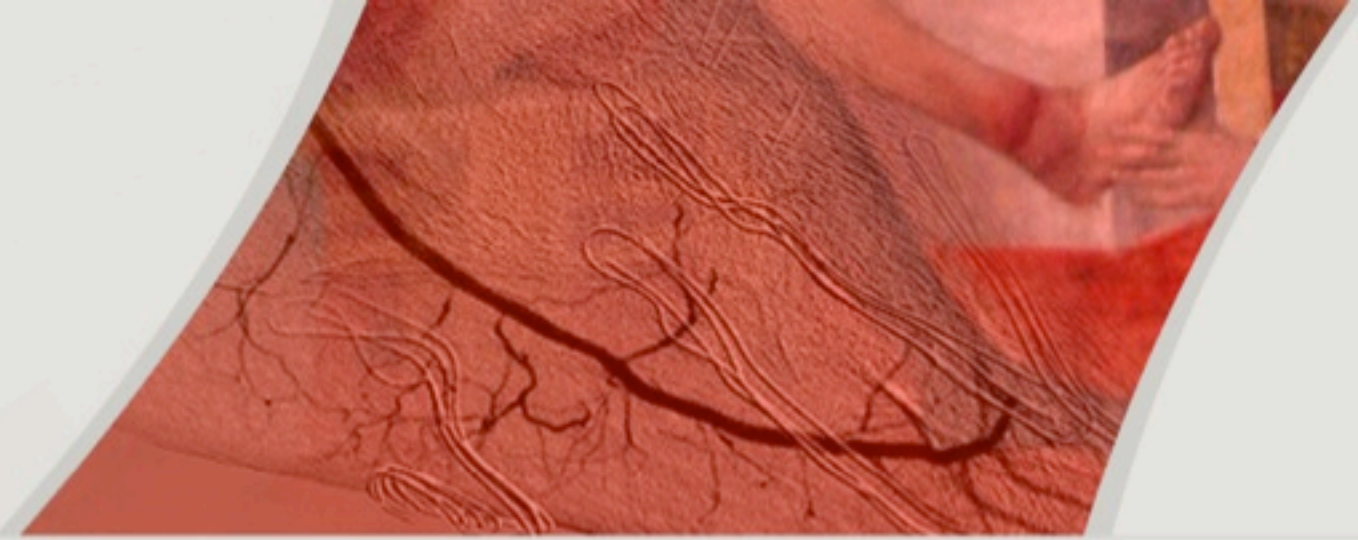
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Peripheral Interventional Unit

www.robtoferraresi.it



Acute result optimization



Plain Old Balloon Angioplasty (POBA) using BTK dedicated balloons

- Patient 1
- Patient 2

Bailout stenting with BTK dedicated stents

- Patient 3
- Patient 4

Acute result optimization

- 1. Plain Old Balloon Angioplasty (POBA)
using BTK dedicated balloons**
- 2. Bailout stenting with BTK dedicated
stents**

BTK dedicated balloons

- 0.014" and 0.018" OTW
- 4 Fr compatible
- Low-profile
- High trackability
- High pressure (14-20 atm)
- 1.5-6.0 mm diameter
- Long balloons (2-30 cm)
- Cylindrical and tapered

BTK dedicated balloons are the key point in BTK PTA. There are no data regarding inflation time in BTK POBA, but tradition suggests long inflation times (2-3')

J Cardiovasc Surg (Torino). 2009 Jun;50(3):365-71.

Applicability and clinical results of percutaneous transluminal angioplasty with a novel, long, conically shaped balloon dedicated for below-the knee interventions.

Gandini R, Volpi T, Pampana E, Uccioli L, Versaci F, Simonetti G.

BTK dedicated balloons

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Trackability is essential in BTK angioplasty!

Patient 1

Long posterior tibial artery
occlusion: observe the
trackability of different types
of balloons

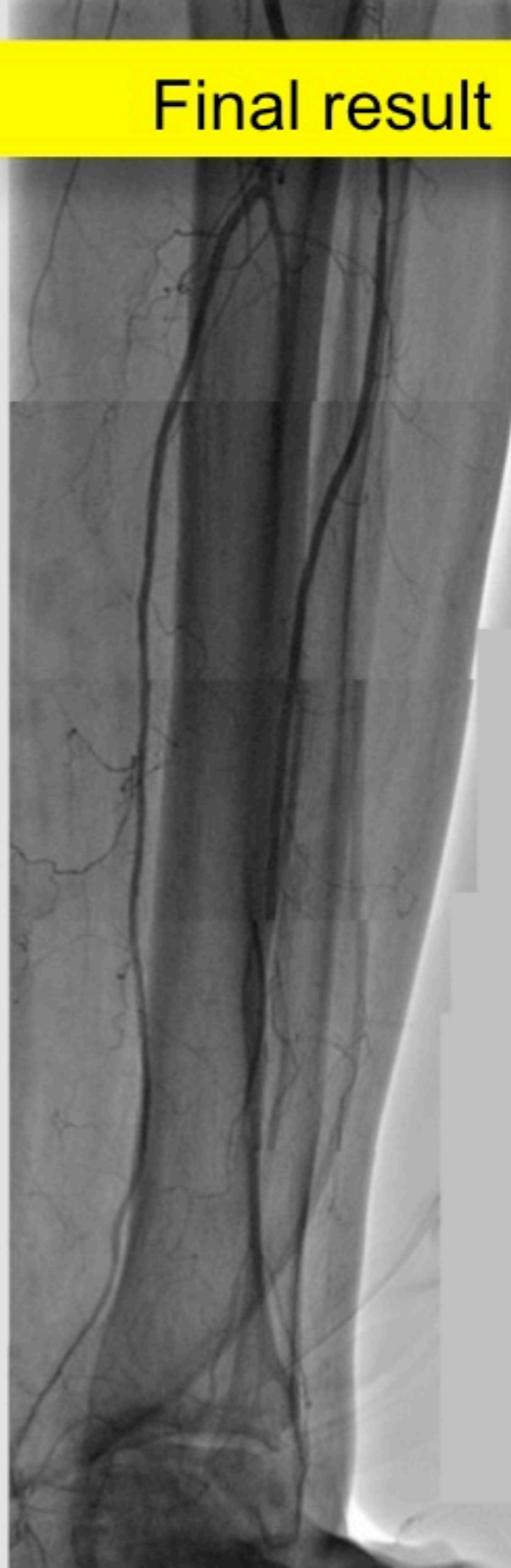


This 0.014" balloon has poor trackability and is unable to cross the long occlusion of posterior tibial artery.



This 0.014" balloon has a good trackability and is able to cross the long occlusion of posterior tibial artery

Final result

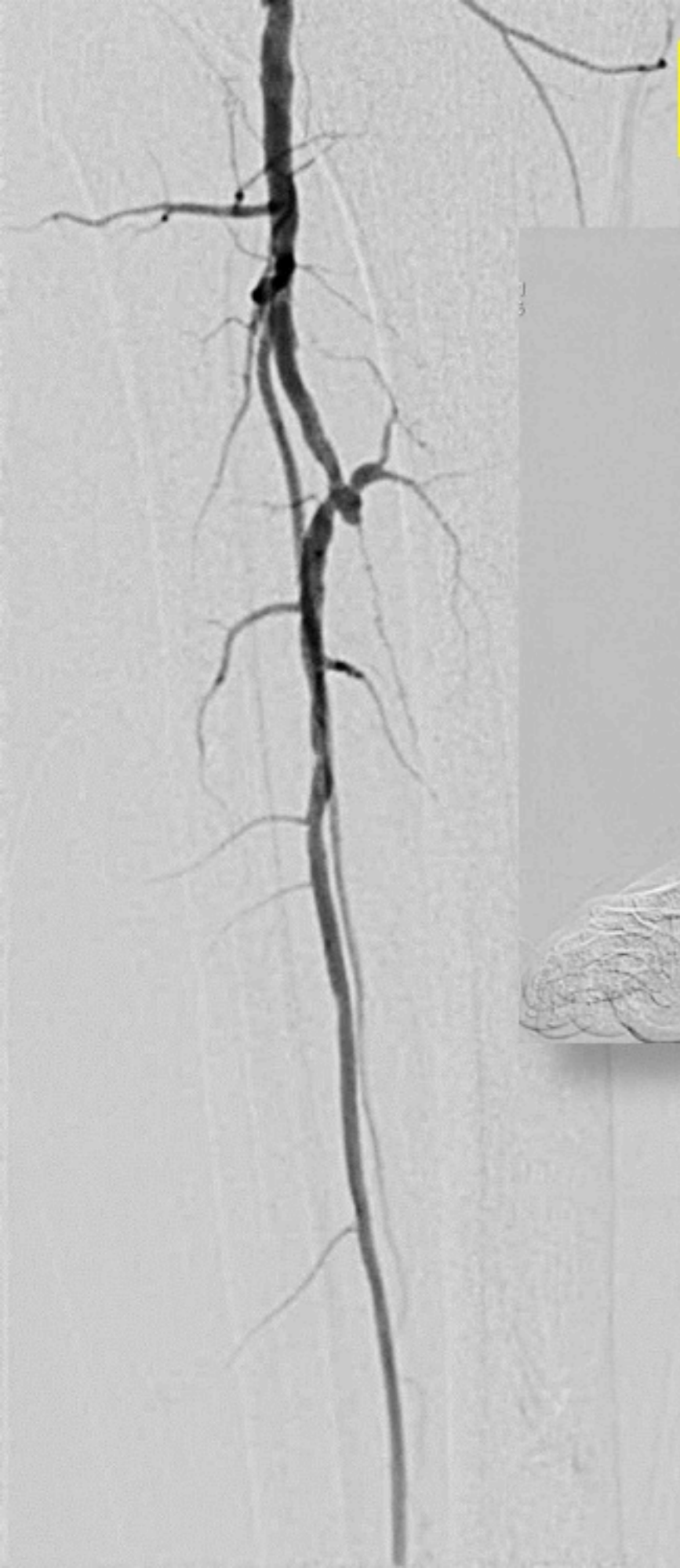


Patient 2

Long posterior tibial artery
and lateral plantar artery
occlusion

Basal angio

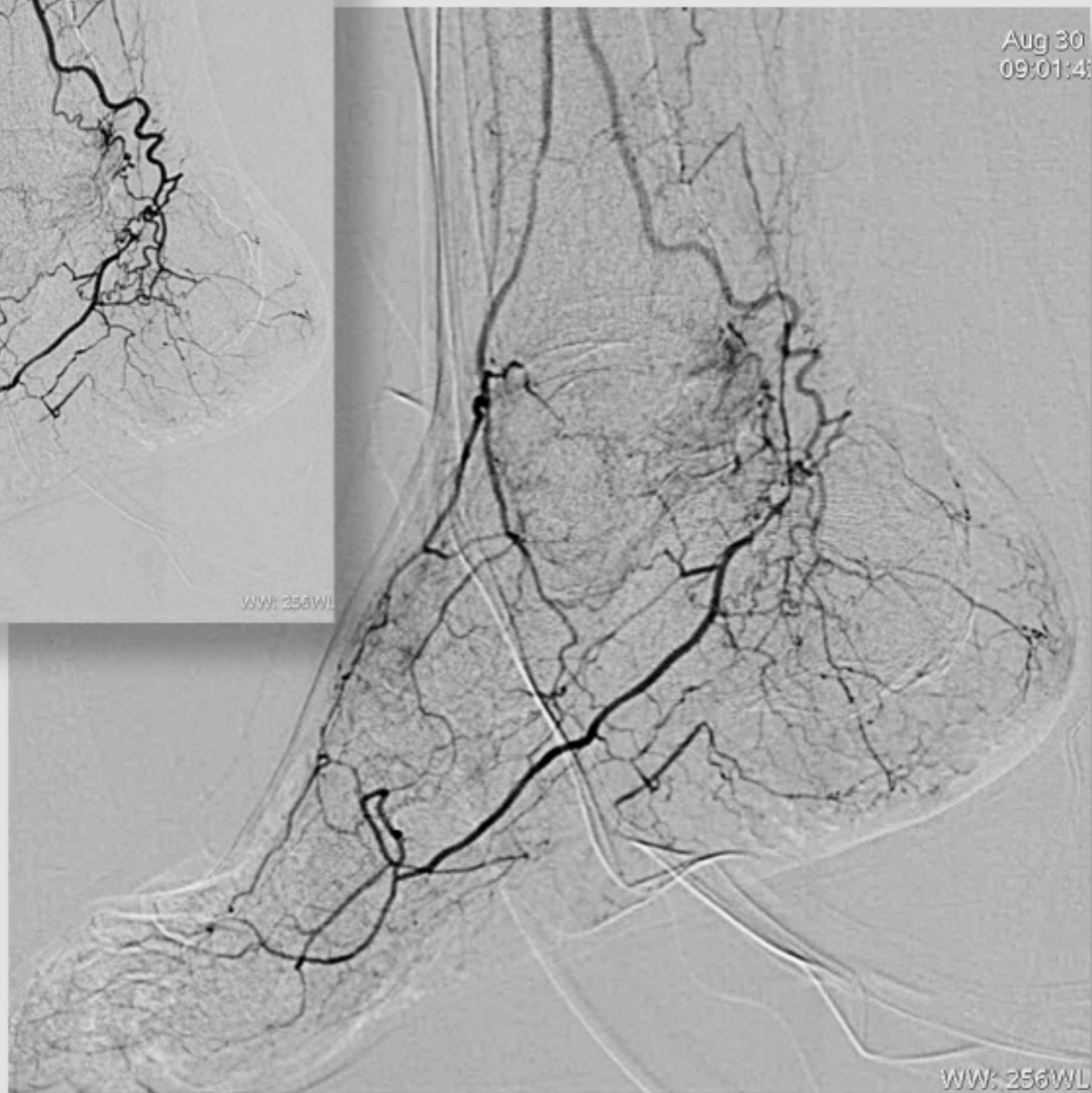
Basal angio



sub

Aug 30
09:01:4

WW: 256WL



Aug 30
09:01:4

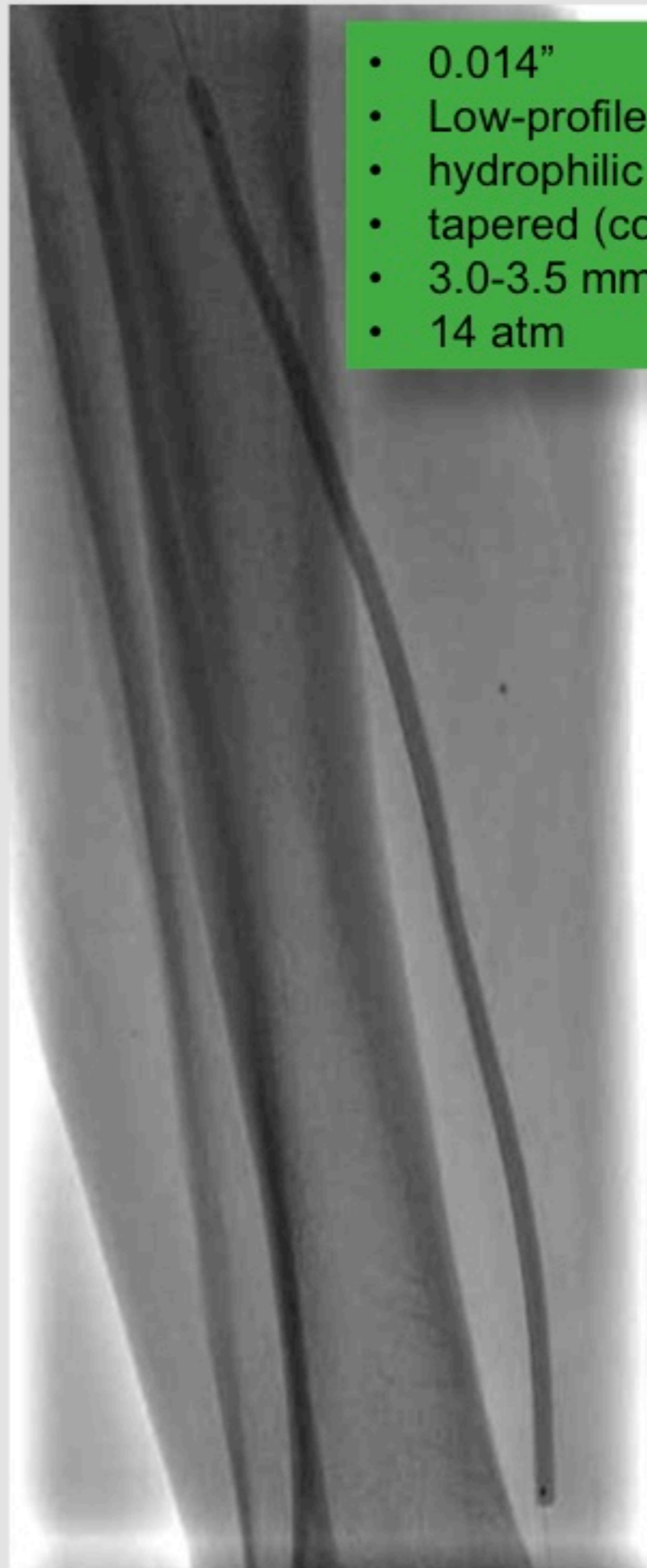
WW: 256WL

Treatment

Balloon dilatation

- 0.014"
- Low-profile
- hydrophilic
- tapered (conic shape)
- 2.5-3.0 mm x 21 cm
- 14 atm

- 0.014"
- Low-profile
- hydrophilic
- tapered (conic shape)
- 3.0-3.5 mm x 21 cm
- 14 atm



Final result



Final result



sub

Aug 30
09:19:45

WW: 256WL

Acute result optimization

**1. Plain Old Balloon Angioplasty (POBA)
using BTK dedicated balloons**

**2. Bailout stenting with BTK dedicated
stents**

Bailout stenting with BTK dedicated stents

- 0.014" and 0.018" OTW & monorail
- 4 Fr compatible
- Low-profile
- High trackability
- 2.5-6.0 mm diameter
- Long stents (8-20 cm)

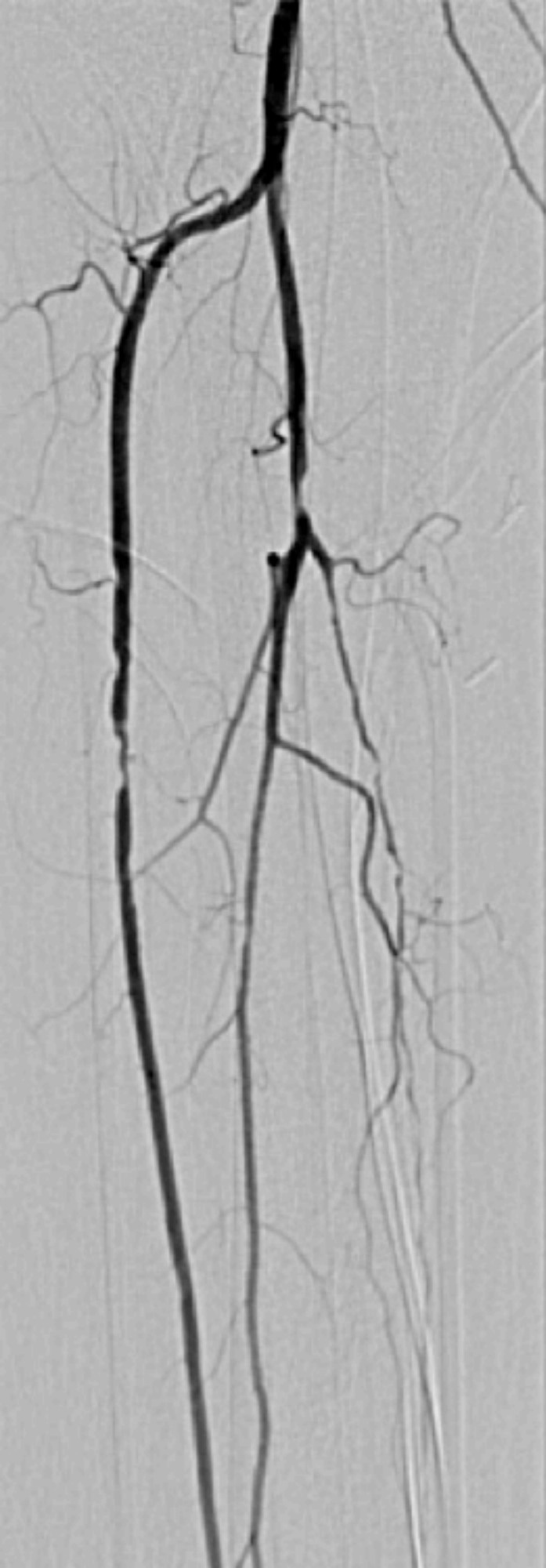
- 1. Balloon expandable stents: better only in the upper part of the leg where muscles protect them from mechanical damage**
- 2. Self-expandable nitinol stents**

Essential bibliography

1. Peeters P, Keirse K, Verbist J, Deloose K, Bosiers M. Other endovascular methods of treating the diabetic foot. *J Cardiovasc Surg (Torino)* 2009;50:313-21
2. Kickuth R, Keo HH, Triller J, Ludwig K, Do DD. Initial clinical experience with the 4-F self-expanding XPERT stent system for infrapopliteal treatment of patients with severe claudication and critical limb ischemia. *J Vasc Interv Radiol* 2007;18:703-8
3. Bosiers M, Lioupis C, Deloose K, Verbist J, Peeters P. Two-year outcome after Xpert stent implantation for treating below the knee lesions in critical limb ischemia. *Vascular* 2009;17:1-8
4. Donas KP, Schwindt A, Schönefeld T, Tessarek J, Torsello G. Below-knee bare nitinol stent placement in high-risk patients with critical limb ischaemia and unlimited supragenicular inflow as treatment of choice. *Eur J Vasc Endovasc Surg* 2009;37:688-9
5. Rocha-Singh KJ, Jaff M, Joye J, Laird J, Ansel G, Schneider P; VIVA Physicians. Major adverse limb events and wound healing following infrapopliteal artery stent implantation in patients with critical limb ischemia: the XCELL trial. *Catheter Cardiovasc Interv* 2012;80:1042-51
6. Katsanos K, Diamantopoulos A, Spiliopoulos S, Karnabatidis D, Siablis D. Below-the-ankle Angioplasty and Stenting for Limb Salvage: Anatomical Considerations and Long-term Outcomes. *Cardiovasc Intervent Radiol* 2013;36:926-35
7. Kwarada O, Yokoi Y, Higashimori A, Waratani N, Waseda K, Honda Y, Fitzgerald PJ. Stent-assisted below-the-ankle angioplasty for limb salvage. *J Endovasc Ther* 2011;18:32-42
8. Kwarada O, Yokoi Y. Dorsalis Pedis Artery Stenting for Limb Salvage *Catheter Cardiovasc Interv* 2008;71:976-82

Patient 3

Focal tibioperoneal and
anterior tibial artery stenosis
in a Rutherford 4 patient





basal



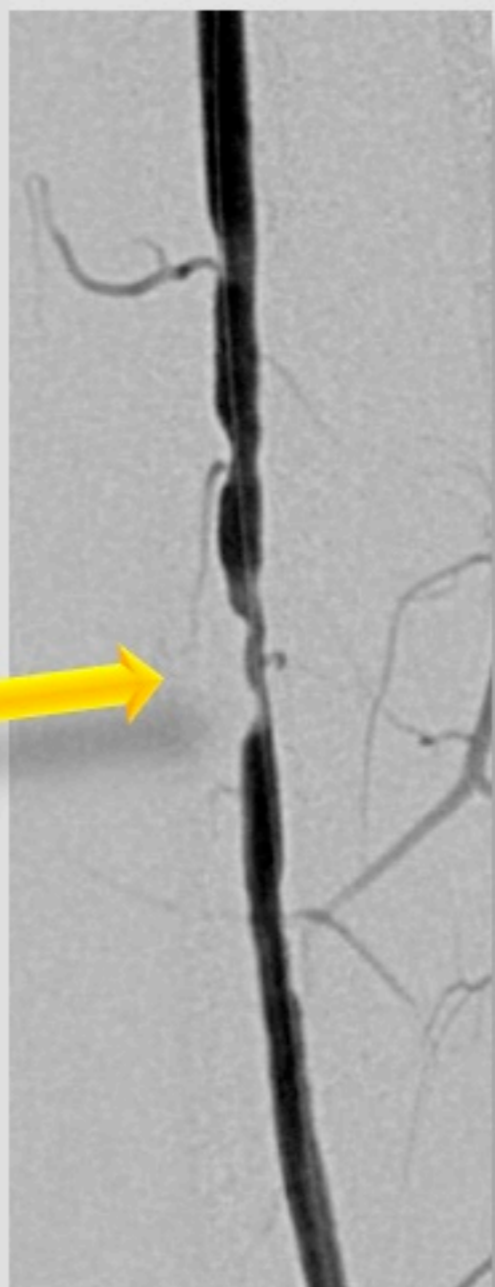
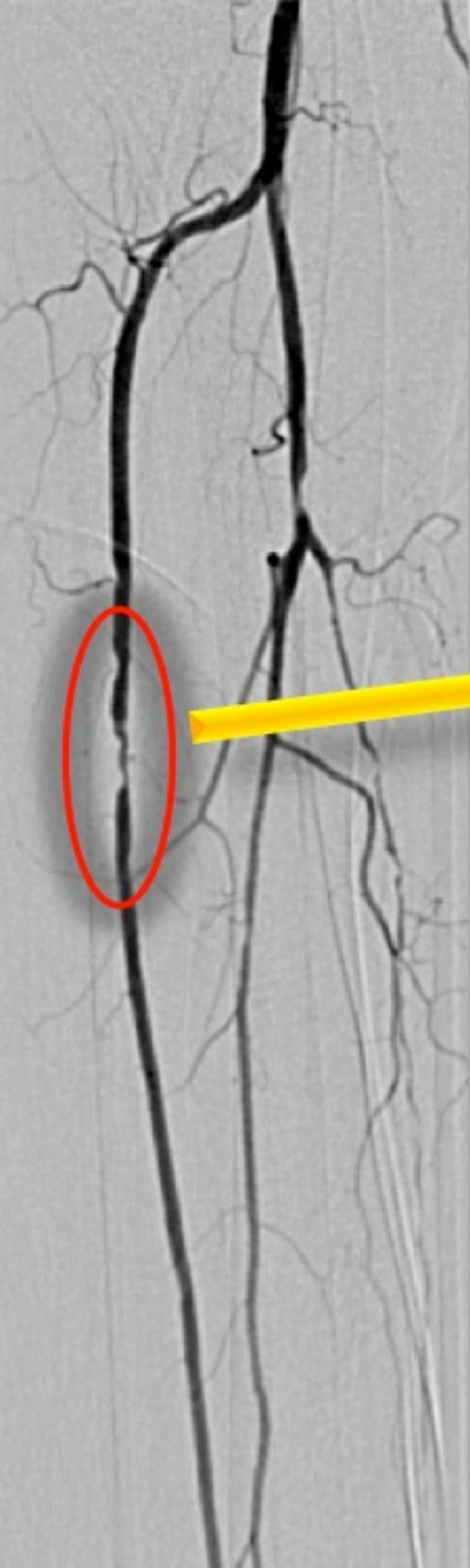
**after
DEB**
3.5 x 20 mm



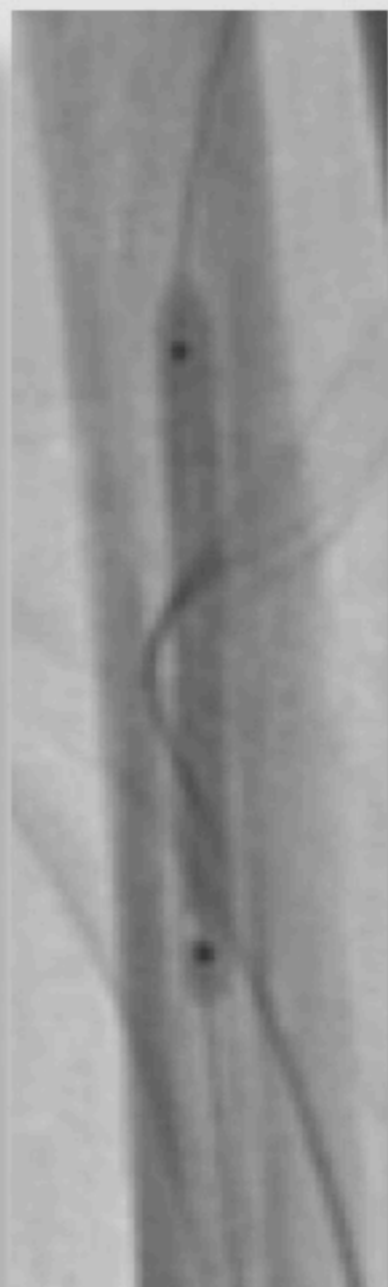
**after
BMS**
3.5 x 18 mm



**final
result**



basal



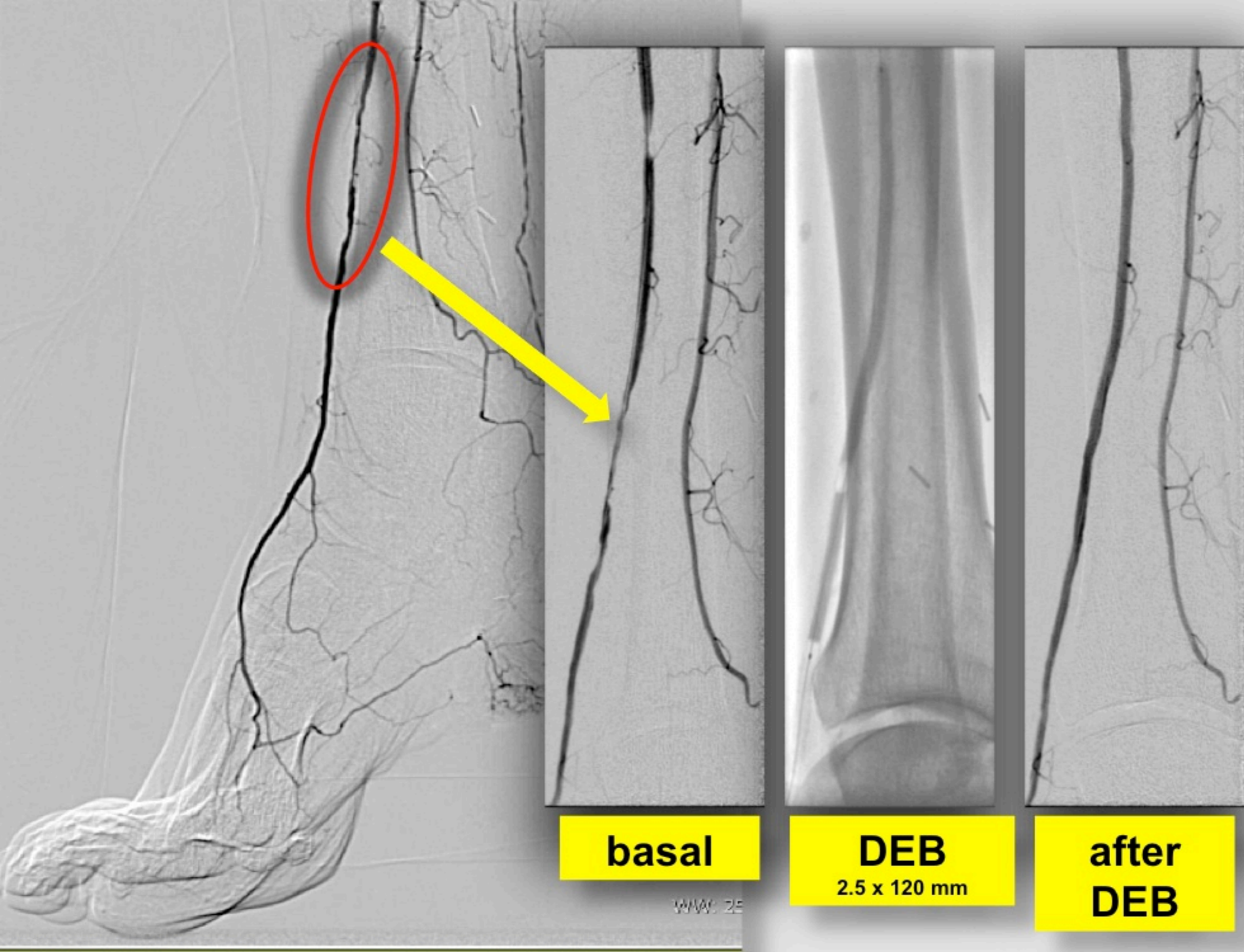
DEB
3 x 40 mm

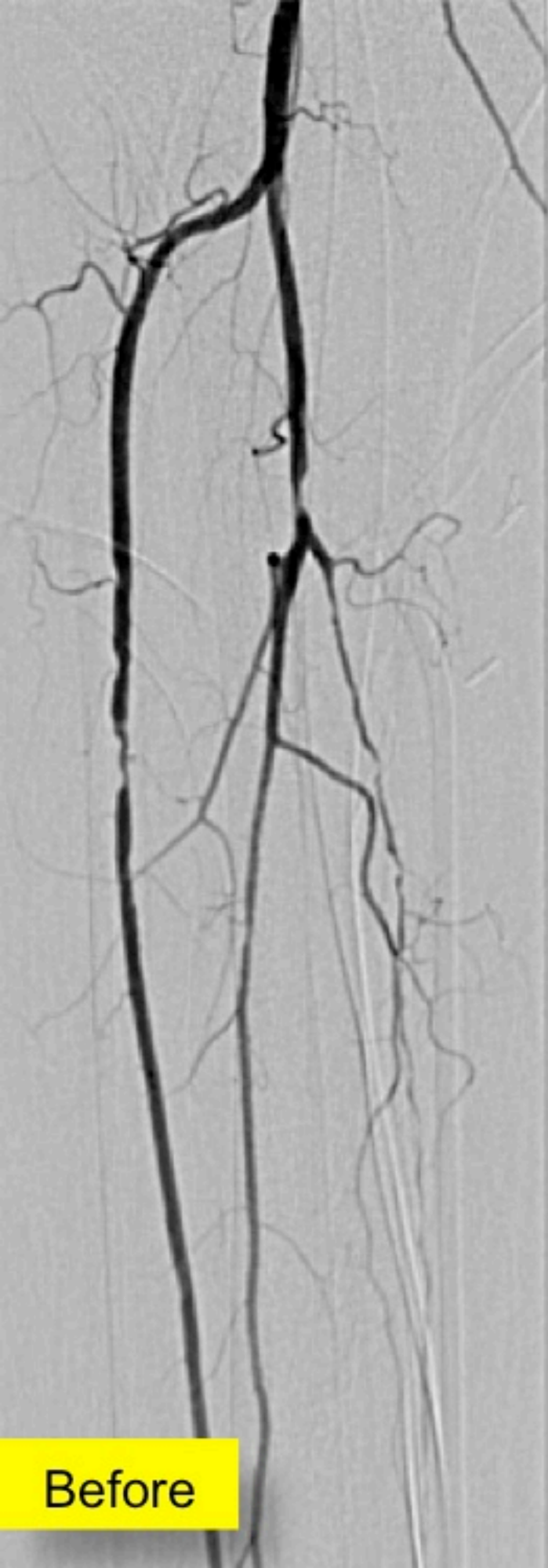


**after
DEB**



**after
nitinol self
exp. stent**
4 x 40 mm





Before



After

Before



After

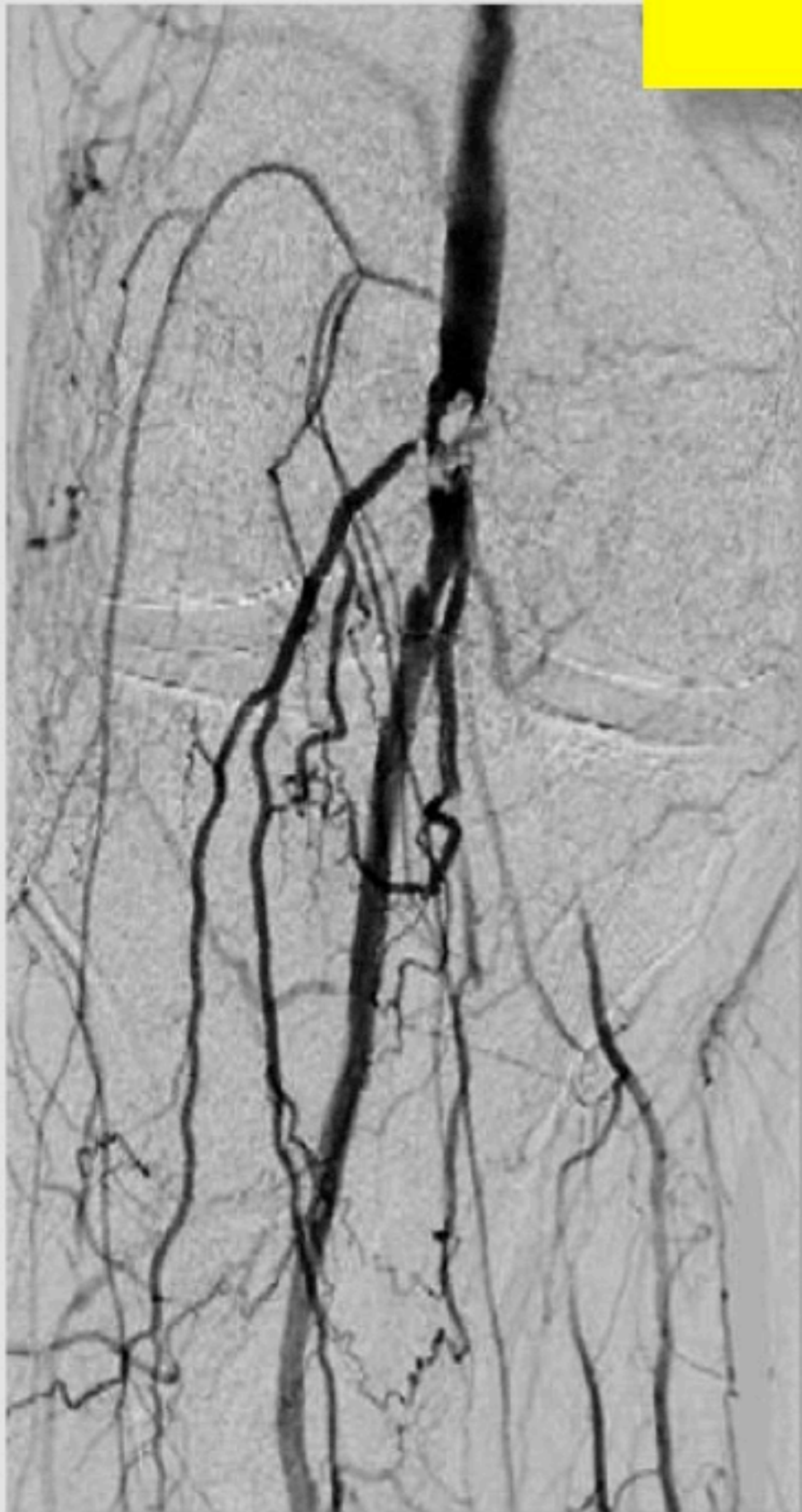


Patient 4

Subacute thrombosis of the posterior tibial artery

Basal angio

Basal angio



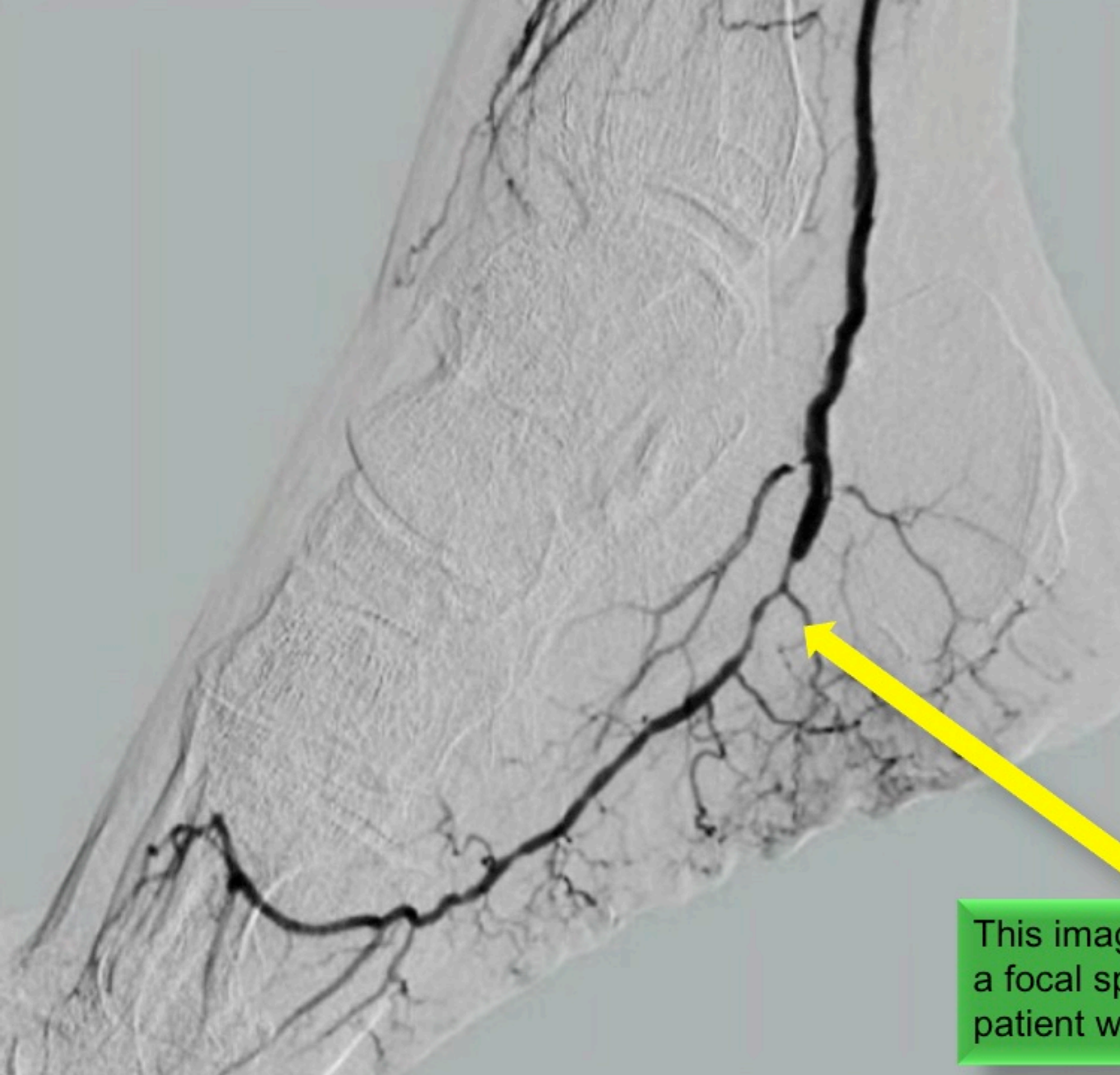
Atherectomy without protective filter

Result after atherectomy

Peripheral embolization in the last leg vessel!



Treatment of distal posterior tibial artery



This image was considered a focal spasm and the patient was sent to the bed

2 hours later

- Foot pain
- Blue foot skin

2 hours later



Subacute thrombosis of the distal segment of posterior tibial artery

Final result

Stenting with a self-expandable nitinol stent, 3.0 x 100 mm

Acute result optimization

- 1. Plain Old Balloon Angioplasty (POBA)
using BTK dedicated balloons**
- 2. Bailout stenting with BTK dedicated
stents**

This is our standard two-steps
approach