



# Brisk Flow in Anterior Tibial



## Marianne Brodmann, MD

Substitute Head of the Clinical Division of Angiology  
Department of Internal Medicine  
Medical University of Graz  
Graz, Austria

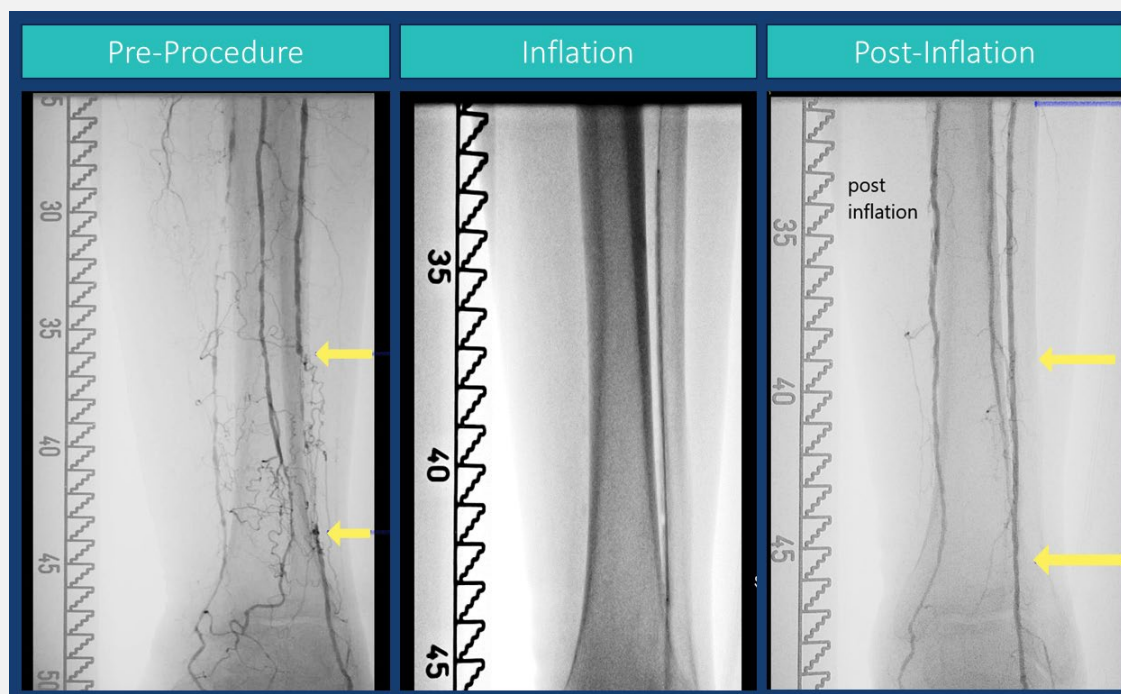
### Patient Background

A 71-year-old man with diabetes mellitus since 2016 currently treated with an oral antidiabetic drug, well-controlled arterial hypertension, hyperlipidemia (currently treated with statins), and a history of smoking was sent to our outpatient clinic due to a unimproved ulcer on his fifth toe. He was under regular observation at our diabetic foot clinic because the ulcer on this toe had a necrosis on the tip, but the lack of improvement required an intervention. MRA showed multiple lesions in the left BTK arteries.

### Approach

The posterior tibial artery was treated first with POBA, and the anterior tibial branch had two lesions that qualified for treatment with the Serranator. The lower lesion was a 120-mm-long total occlusion and was treated with a 2.5- X 120-mm Serranator (Figure 1). The final inflation was at 4 atm for 120 seconds, with good results. The more proximal second lesion was approximately 20-mm-long and was treated with a 3- X 40-mm Serranator balloon at 5 atm for 120 seconds (Figure 2).

### Lesion 1: Distal Anterior Tibial



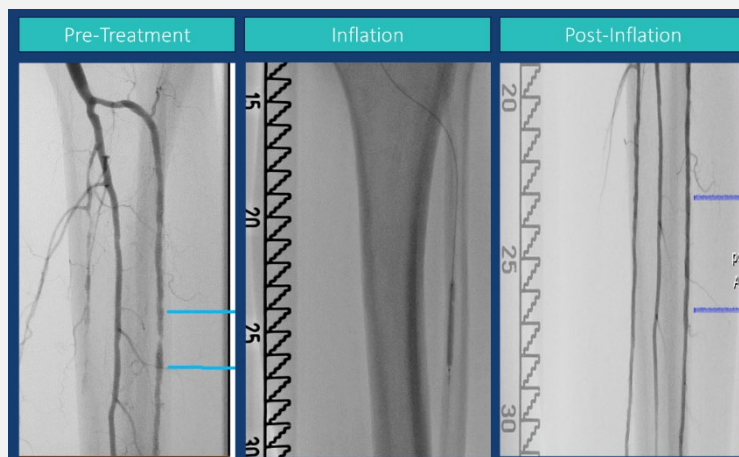
**Pre-Procedure:** RVD: 2.2; Lesion Length: 81mm; Calcification: mild; 100% stenosis

**Inflation:** pre-dilatation: 1.5mmX120mm, Armada 14; 2.5 X 120 Serranator; max 4 atm

**Post-Inflation:** Residual stenosis: 19%

**Treatment Details:**

- **Lesion 1 Pre-dilatation:** 1.5 x 120mm
- **Lesion 2 Pre-dilatation:** None
- **Sizing:** 1:1 Balloon to artery ratio (~physician said RVD = 3 which is 1:1 but corelab said 2.28 which is 1.3:1)
- **Guidewire:** Asahi, Gladius, 0.014"x 300cm
- **Sheath:** 6F
- **Lesion 1 Inflation:** 4atm for 120sec
- **Lesion 2 Inflation:** 5atm for 120 sec

**Lesion 2: Proximal Anterior Tibial**

**Pre-Treatment:** RVD: 2.28; Lesion Length: 7.13mm; Calcification: mild; 67% stenosis

**Inflation:** 3.0 X 40 Serranator; maximum 5 atm

**Post-Inflation:** Residual stenosis: 7%

**Discussion**

This case is exciting because of the direct comparison between both POBA and the Serranator in the same procedure. We observed a much better outcome with the Serranator-treated lesion (anterior tibial) compared with the POBA-treated lesion (posterior tibial), where some recoil was visible. In addition, the flow down to the foot was significantly better in the Serranator-treated vessel.