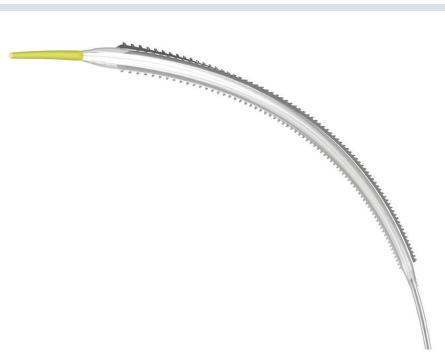


# Cath Lab Digest

A product, news & clinical update for the cardiac catheterization laboratory specialist



## CASE REPORT

### Bilateral Lower Extremity Treatment With the Serranator PTA Serration Balloon Catheter

Antonis Pratsos, MD

A 77-year-old male presented with significant, bilateral peripheral arterial disease. He had a past medical history of coronary artery disease requiring a stent to the right coronary artery (RCA), hypertension, hypercholesterolemia, and a previous myocardial infarction. His claudication (Rutherford classification 3) symptoms included cramping while walking, bilaterally, but with the right greater than the left. The treatment plan was to evaluate and treat the right leg with follow-up to evaluate, then treat, the left leg.

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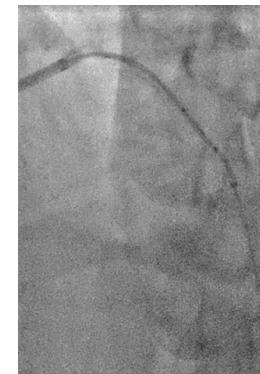
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## CALCIUM CORNER

### Tips and Tricks for Guide Extension Catheter Usage With Intravascular Lithotripsy

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## CASE SERIES

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Matthew G. Whitbeck, MD; Jeffrey W. Chambers, MD



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# Bilateral Lower Extremity Treatment With the Serranator PTA Serration Balloon Catheter

## Novel Serration Technology

Antonis Pratsos, MD

### Right Leg Intervention

Retrograde, contralateral access was obtained with a 6 French (Fr) 45-inch sheath. Baseline angiography revealed patent iliac, common femoral and profunda arteries. The superficial femoral artery (SFA) demonstrated some moderate disease:

- Distal and proximal SFA: 30% stenosis
- Mid SFA: 50%-60% stenosis

The most significant stenoses were in the popliteal artery and below the knee (BTK) (Figure 1):



Figure 1. Right leg, pre procedure.

- Popliteal: 90% stenosis
- Anterior tibial (AT): 99% subtotal occlusion
- Proximal tibial peroneal trunk (TPT): 80% stenosis
- Posterior tibial (PT) artery: 100% occlusion

Inflow in the popliteal was optimized with plain balloon angioplasty (POBA) prior to addressing the BTK lesions (Figure 2). A 3 mm x 120 mm Serranator PTA Serration Balloon Catheter (Cagent Vascular) was utilized with serial overlapping inflations to treat the anterior tibial artery. The Serranator was used distal to proximal with max



Figure 3. Right leg, 3 mm x 120 mm Serranator inflation.

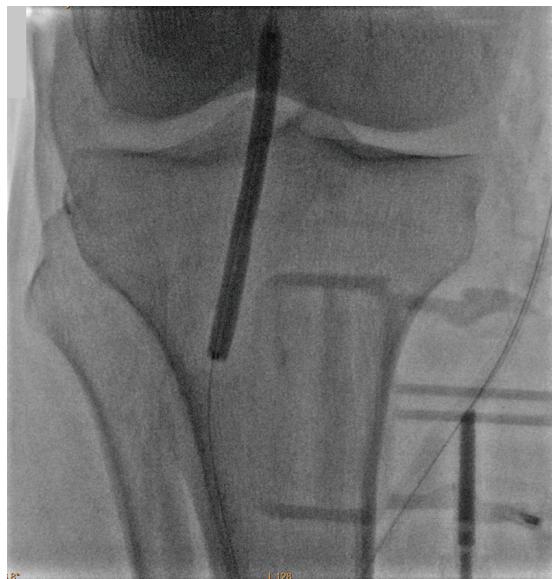


Figure 2A-B. Right leg, inflow treatment with plain balloon angioplasty.

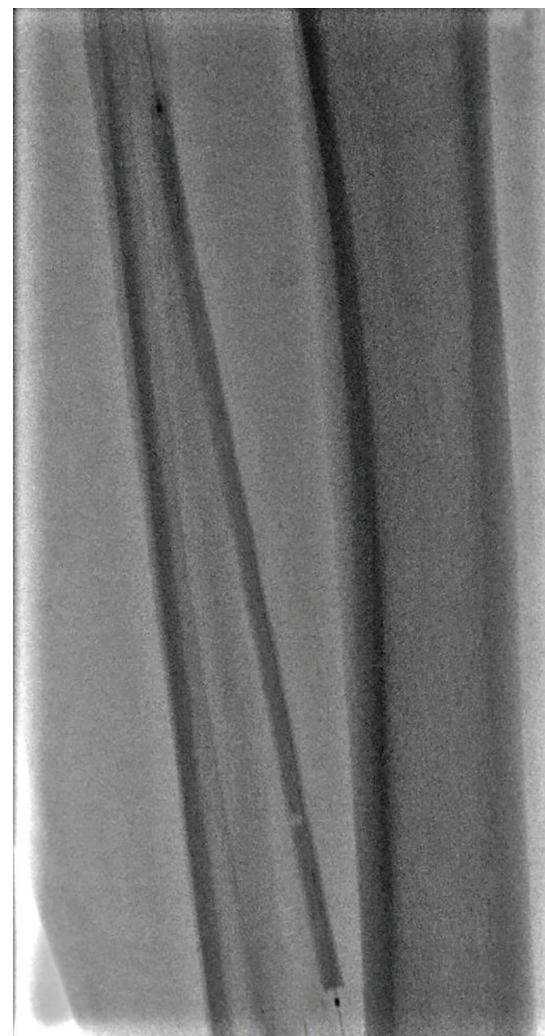


Figure 4. Right leg, 3 x 120 mm Serranator inflation.



Figure 5. Right leg, post Serranator, final results.



**Figure 6.** Left leg, pre procedure.

inflation at 12 atmospheres (atm) for two minutes (Figures 3-4). A 3 mm x 80 mm Serranator balloon was then used in a similar manner to treat the TPT, with a maximum inflation of 8 atm for two minutes. Following Serranator use, significant lumen gain and improved flow was observed, with 0% stenosis and no dissection, perforation, or recoil noted (Figure 5).

### Left Leg Intervention

As previously planned, the patient returned two weeks after treatment of the right leg for treatment of his left leg. This procedure was markedly similar in both disease pattern and intervention to the previous one. Baseline angiography of the left leg also revealed patent iliac, common femoral and profunda arteries, moderate inflow disease of the SFA, and significant disease in the AT, TPT, and PT arteries (Figure 6):

- Distal SFA: 60%-70% stenosis
- AT: 99% stenosis
- TPT: 99% stenosis
- PT: 100% stenosis

Following optimization of the inflow disease, a 3 mm x 120 mm Serranator balloon was used with overlapping, sequential inflations up to 8 atm in the AT artery. The same balloon was then utilized in the TPT at a maximum of 6 atm (Figure 7). Both AT and TPT lesions had 0% stenosis and no dissections, perforations, or recoil were observed (Figure 8).

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**Figure 7.** Left leg, Serranator inflations.



**Figure 8** (Video 1, online with the article at [CathLabDigest.com](http://CathLabDigest.com)). Left leg, post Serranator final results.

### Discussion

At 9 months post intervention, the patient remains free from claudication and continues to be followed. The Serranator was utilized in these interventions for a number of reasons. First, it provides “stent-like” results even in tight stenoses and does so at low atmospheres. The benefits from the use of low inflation pressure are numerous, but most significantly, it reduces the risk of dissections and perforations. Second,

working with the Serranator is very practical. It is easy to insert, remove, and, as was seen in this case, is deliverable to lesions, often without the need to pre-dilate or create a channel. And lastly, the exceptional results are reproducible. Use of the Serranator simplifies our strategy for treating BTK lesions and improves efficiency without compromising on outcomes. ■

*This article is supported by Cagent Vascular.*

## A Q&A With the Operator

*Antonis Pratsos, MD*

**Dr. Pratsos, you mentioned you had exceptional results when using the Serranator. Can you elaborate?**

Yes. The biggest reason I continue to use the Serranator on complex lesions is based on the study results, and more importantly, my own experience. I have done 50 procedures using the Serranator. I am able to see a large lumen gain to restore blood flow to the foot and haven’t seen major dissections. The mechanism of action for the Serranator allows me to have low maximum inflation pressures while still exerting enough focal force to dilate the lesion. I see stent-like results without needing to use a stent. Simply stated, Serranator provides low-pressure balloon inflations, reduces risks of perforations and dissections, and gives excellent lumen gain for optimal blood flow.

**When you decided to bring this into your lab, was your staff concerned about adding a new device?**

When adding new tools, one always has to consider not only the impact to the patient, but also if there is a significant learning curve that will take time for my colleagues in the lab to master. A great benefit to adding the Serranator is that it handles like a standard angioplasty balloon. It was easy to learn and did not require extensive training of the team.

**What does having the Serranator in your lab mean to you?**

The Serranator simplifies our below-the-knee strategy. It is easy to insert and remove, and the results are excellent and most importantly, reproducible. ■