Penumbra for sudden-onset claudication: role of thrombectomy for SFA occlusion

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Disclosure

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I have the following potential conflicts of interest to report:

- Consulting:
  
  Abbott Vascular – Scientific Advisory Board
  CSI Inc. (Proctor for coronary and peripheral applications)
Case # 1

63 yo male smoker with recent-onset claudication

Symptoms started while hiking in Colorado 2 months ago with sudden, excruciating pain in left calf at 3:45 pm

Could not hike anymore and spent next 24 hours in bed; didn’t seek medical attention at the time

Afterwards, had short-distance calf claudication, severely limiting his lifestyle

ECG shows new-onset atrial fibrillation – started on anticoagulation with apixaban
Penumbra Indigo system

Mechanical thrombectomy system based on continuous aspiration
Composed of canister, pump and suction catheter
Separator wire used to prevent clogging of catheter
Main sizes for peripheral applications: 8F, 6F, 5F and 3F (CAT 8, 6, 5 and 3)
However ....
Dealing with the distal embolization...

Penumbra used again--

CAT3

Low-pressure PTA of ATA/DP
Final result in SFA/popliteal...
Follow-up

Did well for 3 weeks, but continued to smoke and questionable compliance with anticoagulation – recurrent short-distance claudication

Repeat angiogram - recurrent occlusion of left distal SFA/popliteal

Penumbra used again, SFA opened, but still large thrombus burden after 2 hours; open thrombectomy – successful

Patient stopped smoking -- doing well 9 mo. later
Case # 2

54 yo female with recurrent acute limb ischemia

Had undergone open surgical thrombectomy of bilateral CFA and SFA for acute ischemia at outside institution 3 weeks before

Clinical improvement noted, but patient states she still had mild pain in RLE on discharge

Pain intensified over next 2 weeks, accompanied by pallor -- presents to our hospital ER
Indigo system
CAT 8 used
with multiple
passes for
about 40
minutes
After overnight thrombolysis
Follow-up # 2

Symptoms improved significantly after revascularization

Mild residual ischemic neuropathy, but able to walk after physical therapy

Hypercoagulable workup unrevealing so far

Doing well at 6 month follow-up
Conclusions

Clinical history of *sudden-onset* claudication is an important marker of thrombotic vessel occlusion.

In these cases, thrombectomy is clearly indicated.

Penumbra Indigo holds promise for effective thrombus removal, although recurrence can be a problem.
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