Intermittent Claudication Without Peripheral Artery Atherosclerosis: Cystic Adventitial Disease Mimicking Peripheral Artery Disease

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[CLINICAL INFORMATION]

Patient initials or identifier number. SSC

Relevant clinical history and physical exam. A 51-year-old male patient without cardiovascular risk factor except smoking was referred from dept. of vascular surgery due to intermittent claudication of Rt. leg after surgical embolectomy of Rt. popliteal artery embolism 1 year ago. On initial CT scan, popliteal artery showed aneurysmal dilatation and near total occlusion. However, ABI was 0.96/1.30. Because he refused revascularization, he was treated with cilostazol.

Relevant test results prior to catheterization. His symptom was not improved after 10-months medication. Although popliteal stenosis was still significant, it seems to be slightly improved on CT scan. Interestingly ABI was 1.15/1.23. Despite of normal ABI results, we planned endovascular treatment.
Relevant catheterization findings. However, peripheral angiography showed no stenosis at Rt. popliteal artery. IVUS showed no atheromatous plaque. All procedure was stopped. On next day, ABI was checked again. ABI was 0.87/1.03 after exercise and 1.03/1.19 on resting.
**INTERVENTIONAL MANAGEMENT**

**Procedural step.** The popliteal lesion was re-evaluated with other image modalities. On ultrasound examination, that lesion was considered as Baker’s cyst. On magnetic resonance image, that lesion was considered as varicose veins or multicystic ganglionic cyst. With suspicion of Baker’s cyst, patient was referred to surgeon. After opening cystic wall, mucinous materials were drained. Surgeon found that the cystic wall was continued with adventitia of popliteal artery and medial wall of popliteal artery was located inside of cyst. Finally, affected popliteal artery was removed and vascular graft was transplanted at that lesion.

**Case Summary.** Cystic adventitial disease (CAD) is an uncommon vascular pathology. The vast majority of cases occur in arteries. Although CAD can affect any peripheral vessel, there is striking predilection in the popliteal region, affected up to 85% of cases. In this case, CAD mimicked intermittent claudication. Careful review of image should be conducted before performing endovascular or surgical treatment of popliteal lesion.