

Angiographic Improvement after Rapid Intermittent Compression Treatment [ArtAssist[®]] for Small Vessel Obstruction

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A case is presented of a female ex-smoker who underwent bypass or exploration of all three below-knee arteries with failed results. Three separate arteriograms, performed at other academic institutions, demonstrated progressive, severe involvement of the pedal arteries. Therefore, the patient was prepared to undergo below-knee amputation surgery for uncontrollable rest pain and progressive necrosis of the forefoot; instead, the patient underwent 4 months of intermittent compression treatment. A fourth arteriogram, performed after 4 months of intermittent compression treatment (using rapid inflation/deflation and high-pressure cycle; ArtAssist[®]) demonstrated marked improvement of the posterior tibial artery runoff and development of more extensive collateral arteries in the calf. The patient's rest pain subsided and successful limb salvage was accomplished with a modified transmetatarsal amputation. This case could encourage other practitioners to repeat arteriography after compression treatments, which may redirect the treatment plan for selected patients with critical limb ischemia and nonreconstructable peripheral vascular disease.