

VASCULAR DISEASE

Drug-eluting stents in ischaemic peripheral artery disease

Multiple comorbidities can mean that some patients with critical limb ischaemia are unsuitable for bypass surgery. Percutaneous transluminal balloon angioplasty (PTA) is currently the predominant nonsurgical intervention, but data from the ACHILLES trial indicate that sirolimus-eluting stent implantation (SES) is a suitable alternative therapeutic approach in these patients.

In the prospective, multicentre trial, investigators randomly allocated 200 patients with symptomatic infrapopliteal arterial disease to either PTA or SES. After 1 year, quantitative angiography revealed a lower rate of in-segment restenosis (the primary end point) with SES than with PTA (22.4% vs 41.9%; $P=0.019$). Vessel patency was increased with SES (75.0% vs 57.1%, $P=0.025$), whereas the rate of death, repeat revascularization, or index-limb amputation was unchanged between the groups.

“Because the patient population studied is usually not amenable to surgical intervention, there is a clinical need to improve on outcomes from medical therapy alone,” state the investigators. “The less invasive nature of endovascular therapy makes it theoretically a more attractive alternative for patients with critical limb ischemia and multiple comorbidities associated with higher mortality.” The results from the ACHILLES trial indicate that SES can be used as a therapeutic option for patients with infrapopliteal disease.

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Original article Scheinert, D. *et al.* A prospective randomized multicenter comparison of balloon angioplasty and infrapopliteal stenting with the sirolimus-eluting stent in patients with ischemic peripheral artery disease. 1-year results from the ACHILLES trial. *J. Am. Coll. Cardiol.* 60, 2290–2295 (2012)