INVITED COMMENTARY

What stent and when in the superficial femoral artery?

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This paper by Haine *et al.*[1] presents further data to attempt to guide optimal revascularisation strategies in patients with symptomatic lower limb peripheral artery disease (PAD).[1] The authors have compared two differing stent platforms (interwoven nitinol stents and drug eluting stents) in the management of femoropopliteal lesions and conclude that they show comparable efficiency with regard to the primary outcome measure of clinically derived target lesion revascularisation. While each stent platform has its own unique selling point, will the data help guide clinicians in daily practice, or does the study generate more questions than it answers?

The authors draw attention to the limitations of the study, namely the retrospective single centre nature of the study and the effect of other confounders, including factors that influence decision making. The authors examined a large group of patients and used appropriate statistical analysis to try and limit the built in biases of such a study.

They are a large centre with recognised experts in their field and ask a valid question, one that is often asked daily by clinicians: Which is the better stent in which types of patients?

Yet, this paper highlights acutely the current challenges in lower limb PAD research. The groups of patients examined are heterogeneous, including both claudicants and patients with chronic limb threatening ischaemia (CLTI). The optimal patient relevant outcome measures will vary depending on the severity of the limb ischaemia. While patency is of some importance, it is only by its knock on effect on more important outcomes, namely quality of life and walking distances in claudicants and limb salvage/functionality in patients with CLTI. These data also highlight the continued lack of clarity and optimisation with regard to post-intervention pharmacological therapy. Variability in the role of antiplatelet regimens and a lack of adherence to appropriate lipid lowering therapies may adversely affect outcomes. Such findings are not unique to this study.

There is also heterogeneity in the types of lesions treated. While the majority of such lesions were TASC B/C there were some A and D lesions, which while probably representing "real world" practice confounds understanding of what stent to use in which patient. While the burden of atherosclerosis is important, so is the type of plaque. With the increasing prevalence of renal failure and diabetes, lesions are becoming increasingly more calcified. With this, there is a resurgence in endovascular techniques to try and negate such calcification, an example being atherectomy devices, yet the unrelenting production line of new devices limits the ability of the vascular community to apply the required scientific rigour in appropriately constructed studies, highlighted in part by the current deliberations surrounding the use of paclitaxel.

The authors need to be congratulated for their attempts to define how to optimise the use of stent revascularisation. The study highlights that the field of lower limb ischaemia continues to have a plethora of unanswered and clinically relevant questions including a need for defined quality indicators for PAD interventions with appropriate patient input in their development. Yet, one needs to recognise the painful universal lessons across medicine in general where we have based decision making on inadequately controlled studies. The field of lower limb ischaemia is ripe for appropriately designed patient relevant studies.

REFERENCE

1 Haine A, Schmid MJ, Schindewolf M, Lenz A, Bernhard SM, Drexel H, et al. Comparison between interwoven nitinol and drug-eluting stents for endovascular treatment of femoropopliteal artery disease. *Eur J Vasc Endovasc Surg* 2019;**58**:865–73.

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