

INVITED COMMENTARY

“Endovascular first” Strategies are not for Every Patient**Christopher P. Twine**

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The term “endovascular first” was made popular by research but has gradually become accepted as a standard approach to lower limb revascularisation: “give it a go” endovascularly then bypass if this fails. This was always a misappropriation of the research data, and the meta-analysis by Hossain et al.¹ shows exactly why we need to be cautious with widespread adoption of a practice without clear evidence.

Endovascular first strategies were already popular when the initial results of the BASIL1 trial were reported as balloon angioplasty first is broadly similar to vein bypass first.² Longer term, non-powered comparisons from BASIL soon showed a more subtle picture than this,³ as did a wealth of other data,⁴ but the message in clinical practice had already become endovascular first in many units. By this time the enthusiasm for endovascular intervention was high, and arguing against an endovascular first approach was met with counter arguments over improved technology, better patient selection, and better medication protocols.

However, if the results of this meta-analysis are to be believed, patients undergoing bypass after failed endovascular intervention fare worse than if they are offered bypass first. This is an important message because the long-term results of the BASIL trial showed that vein bypass was superior to endovascular intervention in the long term, with the caveat that it was never designed with statistical power for observations over this amount of time.³ Cohort results have been more conflicted.¹ These caveats affect the ability of this meta-analysis to make definitive recommendations. It predominantly includes cohort studies that will all suffer from selection bias concerning the severity of atherosclerosis, patient selection, and operator outcomes. The cohorts

were generally small with low event rates, so the meta-analyses are skewed by results from the larger studies favouring primary bypass.¹

In addition to this, the aforementioned counter arguments for endovascular intervention are also true in that everything has changed since many of these studies were published. Whether the mechanism by which endovascular intervention potentially affects any subsequent bypass has also changed is unknown, because that mechanism was unclear in the first place.

The summary is that this analysis should strike a note of caution into our endovascular decision making. The patient with a useable vein and a more complex endovascular option needs careful consideration and counselling for the best outcomes.

REFERENCES

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