As the authors indicate a number of publications have previously shown a benefit to a vein cuff (VC) at the distal anastomosis of a synthetic below-knee PTFE femoropopliteal (BKFPG) or femoro-distal bypass graft (FDB). Thus many surgeons routinely employ this technique. They will therefore be surprised that the current study shows no advantage to a VC and even suggests that it reduces primary patency rates for a BKFPG. Similarly the absence of a VC does not appear to compromise limb salvage rates.

Why should these outcomes be so different to those published previously? On the face of it this does not seem to be related to differential compliance with anti-platelet or anti-coagulant therapy as this appears equal in all groups. However data is only available for 68% of the patients. Similarly other important data is also missing from the current study including an accurate assessment of continued smoking post-operatively and the nature of any previous surgical procedures (60% had undergone previous surgery). Further, much of the data on peri-operative risk factors is incomplete.

I also have some concerns about a number of methodological issues with this trial. These include envelope randomisation, which was open to "manipulation" if a participating surgeon felt that a patient might be better off in one group rather than the other and more importantly, the failure to stratify patients on the basis of their run-off vessels. Although the authors believe that this was unnecessary as it should have been accounted for by the randomisation process this may not have been the case given the small proportion of patients in whom 3 year follow-up was achieved (although >60% were alive <40% undertook formal follow-up). These factors might have compromised the validity of the results.

Another concern about the trial methods centres around the variety of techniques (including air plethysmography, hand-held Doppler and simple graft palpation) used to assess graft patency. In particular some of these modalities do not provide hard data to confirm that the graft remained patent. Finally, patients did not necessarily comply with the consensus diagnosis of critical limb ischaemia as not all centres were able to measure toe pressure.

The most important question for the reader is whether this trial provides sufficient evidence to abandon the routine use of a VC when performing an infra-genicular synthetic bypass graft. For this reader the answer is certainly no. The follow-up is small and there are a number of problems with the study methodology which I consider important. Further, even if a VC really is of no benefit the operation is easier and the anastomosis likely to be technically superior when a VC is used rather than suturing ePTFE directly to a crural vessel.