

INVITED COMMENTARY

Commentary on 'A Randomized Controlled Trial of the Fascia Suture Technique Compared with a Suture-mediated Closure Device for Femoral Arterial Closure After Endovascular Aortic Repair'

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Several techniques exist for EVAR access closure: 1) open surgical technique with cutdown onto the femoral artery, 2) modified open technique with fascia suture technique (FST), and 3) strictly percutaneous pre-suturing technique with suture-mediated closure device (SMCD). There is no consensus on which technique should be used. In Sweden, cutdown was used in 21% of all EVAR in 2013, FST in 37%, and SMCD in 42%.¹

In this issue, Larzon and colleagues present the results of a randomized controlled trial comparing FST with SMCD (Prostar XL) for femoral artery closure after EVAR.² Based on achievability, time was chosen as the primary outcome. Consequently, the main finding was that FST is faster compared with Prostar. With a median difference of 7 minutes in favor of FST, the clinical relevance of this finding can be questioned. A more desirable and relevant study design would have been technical failure and major complications as primary outcome, with time and cost as secondary endpoints. The authors argue, however, that such a study is not feasible because of the large sample size required.

Operator experience is a strong predictor of technical success for SMCD,³ and excellent results have been reported for experienced operators.⁴ In the present study, experience of 15 cases was used to define the basic level, and of 60 procedures the experienced level. Notably, experienced operators had a technical failure rate of 4% for FST and 7% for Prostar, while corresponding rates for the basic level operators were 27% and 30%, respectively. This indicates that the learning curve is of great importance in both techniques.

Prostar was until recently the only available SMCD for large access sites. ProGlide (Abbot Vascular, Redwood City, CA, USA) is a simplified SMCD recently approved for closure of up to 21F vascular access sites. Ultimately, a complete percutaneous approach is desirable, and with easier-to-learn closure devices and delivery systems getting ever smaller, this is a likely development.

Although FST is more invasive than SMCD, the lack of pre-closure preparation of the access site is an advantage, particularly in the emergency situation. Furthermore, as demonstrated by this investigation, FST can work as a bailout procedure for a failed Prostar XL suture, and may be a cheaper option than Prostar XL.

REFERENCES

- 1 Swedvasc yearly report. 2014 [in Swedish], <http://www.ucr.uu.se/swedvasc/index.php/arsrapporter>.
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