INVITED COMMENTARY

Comments regarding ‘Fascial Closure Following Percutaneous Endovascular Aneurysm Repair’

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During the last decade, endovascular abdominal aortic repair (EVAR) has emerged as the preferred treatment in a selected group of patients with suitable aortic anatomy for endografting. In order to both minimise its invasiveness and reduce complications related to groin dissections, Harrison and co-workers studied a fascial closure technique of the puncture site without the need to touch the femoral artery itself. In 1997, Diethrich was the first to describe closure of the cribiform fascia where it covers the common femoral artery access. Larzon and colleagues published the largest series so far and analysed 131 sutured fascial cases during EVAR. In their hands, complication rate was 13.7% (89% <24 h post-EVAR) with the majority due to haemorrhage, thrombosis or dissection. Late complications were only noticed in two patients (neuralgia and pseudo-aneurysm, respectively).

In this series of Harrison and colleagues, the only modification of the technique has been the use of ultrasound guidance to puncture the common femoral artery at the optimal spot, which is above the femoral bifurcation and below the inguinal ligament. Similar to Larzon, success rate is high (87%) and mid-term complications are low. Leaving the guidewire in place during suturing appears to be a safe trick and is highly recommended. Therefore, the safety and feasibility of this technique seem to be proven and the authors can be appreciated for that.

On the other hand, why do we need a technique which still requires wound dissection in the era of sole percutaneous EVAR (P-EVAR) procedures? In a recent systemic review and a separate published large prospective study summarising >2000 groins, primary success was up to 92% and access-related complication rates were low. The risks of early and late access site repairs post P-EVAR have been associated with operator experience, and scar tissue in the groin (the latter also an exclusion criteria for fascial closure). Obesity — another exclusion criteria in the fascial closure study — is frequently faced in daily vascular practice, and was not an independent risk factor for complications in P-EVAR. Additional costs of percutaneous closure devices might be an obstacle for widespread use compared to the fascial closure technique, but shorter hospital stay post P-EVAR may compensate that.

It can be concluded that the fascial closure technique can be safely performed with respect to the exclusion criteria mentioned by Harrison and colleagues. However, compared to P-EVAR it seems to be a poor alternative.

References