

SURGICAL TECHNIQUE

Intravenous access: obtaining large-bore access in the shocked patient

Obtaining large-bore (> 14G) access in patients who are shocked can be difficult. Venous cutdown, percutaneous Seldinger techniques or the identification of veins with a hand-held Doppler can be of great benefit, but may be beyond the expertise of junior medical staff.

We describe a technique which can allow large-bore access to be established in the absence of any obviously suitable vessel without the need for skills beyond that of simple cannulation.

Technique

Place a tourniquet around the upper arm and identify any vein present in the arm or hand, and insert the smallest cannula available (usually a 'blue' 22G, Fig. 1). Connect this to a bag of warmed crystalloid solution and run it in under pressure, but do not release the upper arm tourniquet.

After a few minutes the venous tree of the arm will be filled with crystalloid (Fig. 2), and it will then be possible to identify a suitable large-calibre vein and insert a large-bore cannula under local anaesthesia.

We make no claim to the originality of this technique, but have not seen it described elsewhere.

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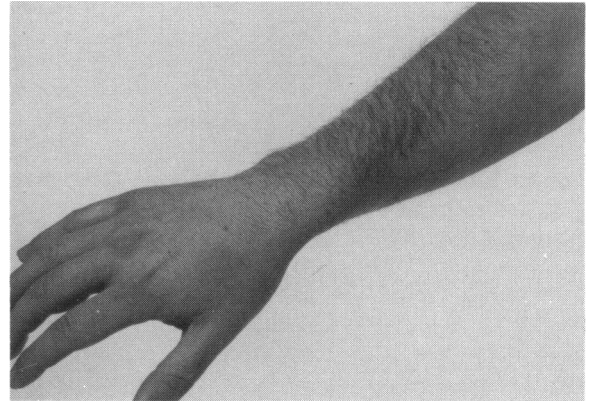


Figure 1. 'Shutdown' arm with only very small veins present.

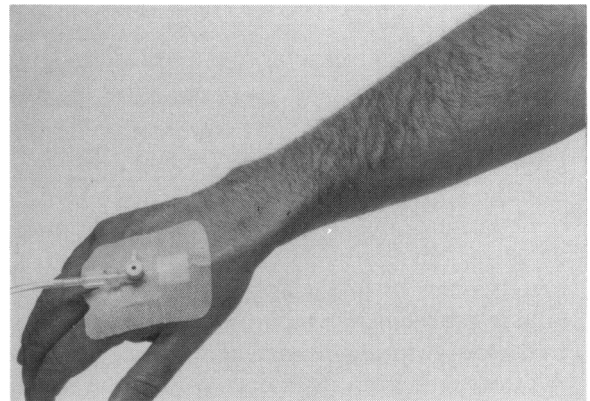


Figure 2. After infusion of crystalloid with tourniquet *in situ*.