Technical Section

TECHNICAL NOTES AND TIPS

Creating gelatine models for vascular access surgical courses

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BACKGROUND

Gelatine models have long been used to replicate human anatomy and are used in acquisition of skills. These models can be expensive and difficult to obtain. We describe a simple, cheap alternative for producing gelatine models after successful trial in a vascular access skills course.

TECHNIQUE

In a rectangular plastic container measuring 10" × 6" × 4", drill a longitudinal half inch hole to allow passage of 15cm long standard hosepipe tubing. Lubricate the entire length of the hosepipe with kitchen oil. Apply silicone sealant around the holes and allow to dry (Fig 1).

Obtain standard supermarket-grade non-flavoured gelatine. The Dr Oetker brand (Leeds, UK) was found to produce the most stable, durable mould. Dissolve 60g of powdered gelatine into 1.3l of warm water. Mix to allow for uniform dissolution. Pour the liquid into the prepared container and leave to set overnight. Remove the hosepipe once the gelatine has set. Return the mould to a similar sized container and submerge in water. The goal is to ensure fluid fills the entire cylindrical space. Cover the mould with dark plastic.

DISCUSSION

This technique was developed after trials of several different gelatines. The walls of the vessels on the model were compressible and amenable to repeated cannulation.

Figure 1 Rectangular container with space around holes sealed with silicone

Figure 2 Gelatine mould ready for use submerged in red stained fluid

Figure 3 Sonographic appearance of mimicked blood vessel