Technical Section [TECHNICAL NOTES AND TIPS

A simple technique of breast tissue expander saline aspiration

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BACKGROUND

Breast tissue expanders are inflatable implants designed to stretch the skin and muscle to make space for a future permanent implant.¹ At times, saline in the expander has to be aspirated from the injection port using a 21G butterfly needle. Poiseuille's law of flow ($Q = \Delta P \pi r^4 / 8 \eta L$)² dictates that this will take time owing to the small calibre of the needle and it will be faster if negative pressure is developed by pulling back on the syringe plunger, requiring the use of both hands. We describe a simple and cheap technique whereby this procedure can be performed more efficiently.

TECHNIQUE

Using an aseptic technique, the butterfly needle is inserted into the expander's injection port (Fig 1). The plunger of a 60ml syringe is then pulled out to its maximum, and a 20ml syringe (eg BD Plastipa™; Beckton, Dickinson and Company, Oxford, UK; £0.20) is placed in the space between the 60ml syringe barrel and the plunger base. The 20ml syringe is the same length as this space (Fig 2) and, once placed appropriately, it keeps the plunger pulled back while the syringe fills.

Figure 1 A 20ml syringe is placed in the space between the 60ml syringe barrel and the plunger base

Figure 2 The butterfly needle is inserted into the expander's injection port

DISCUSSION

Using this simple and inexpensive technique, surgeons' hands are freed up and the need for assistance is minimised. It reduces time taken and avoids fatigue of the hands. This technique can be used to efficiently aspirate postoperative seromas, not only freeing surgeons' hands but also reducing the costs of equipment used in previously described techniques,^{3,4} such as using a vacuum wound drainage system costing £6.16.

References

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