Use of an intravenous cannula as a laparoscopic extracorporeal knot pusher

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BACKGROUND

Extracorporeal suturing is an integral step to many laparoscopic procedures. Although there is a wide variety of knot pushers available on the market, none of these are universally applicable. We describe the modification of an intravenous cannula for use as a laparoscopic knot pusher.

Figure 1 From top: a complete 18G intravenous cannula; the cannula with its appendages removed, leaving the hub; a complete Abbocath®-T catheter; and the hub of an Abbocath®-T catheter

TECHNIQUE

An ordinary 16G intravenous cannula can be used by removing its sleeve and then cutting off the injection port and wings with a pair of scissors. If an unwinged venepuncture catheter (Abbocath®-T; Abbott, Maidenhead, UK) is available, this can be more easily modified by simply cutting off the tip (Fig 1). After tying the extracorporeal knot, the long limb of the suture is threaded through the cannula hub and kept under tension. The hub is then advanced gently with a laparoscopic grasper through a 10mm laparoscopic port, snugging the knot tight (Figs 2 and 3).

DISCUSSION

An 18G cannula is suitable for size 0 and 00 sutures. Smaller cannulas may be used for finer sutures.

Figure 2 Suture threaded through the cannula hub and advanced gently through a laparoscopic port

Figure 3 Knot pushed down (to tie a widened cystic duct during laparoscopic cholecystectomy) using the cannula hub