Secondary port insertion for laparoscopic surgery in infants: a simple safe technique

M PACHL, L SUNDARARAJAN, G JAWAHEER

Department of Paediatric Surgery, Birmingham Children's Hospital, Birmingham, UK

CORRESPONDENCE TO

G Jawaheer, Consultant Paediatric Surgeon, Birmingham Children's Hospital, Steelhouse Lane, Birmingham B4 6NH, UK
E: girish.jawaheer@bch.nhs.uk

BACKGROUND

Insertion of laparoscopic ports in infants can be challenging due to poor compliance of the anterior abdominal wall and the relatively small peritoneal cavity. We describe a new technique with significant advantages.

Figure 1 Stay sutures in position on either side of the skin incision.

Figure 2 Stay sutures are full thickness, including peritoneum.

TECHNIQUE

A primary port is inserted at the umbilicus using Hasson's method and a pneumoperitoneum is created. A small skin incision is made and two stay sutures are inserted on either side of the incision (Fig. 1) by taking a full thickness bite of the abdominal wall under laparoscopic vision (Fig. 2) with 2/0 Vicryl (polyglactin 910) on a 31-mm 1/2c needle. Traction on the stay sutures lifts the abdominal wall away from the viscera, and a trocar and cannula are inserted under direct vision (Figs 3 and 4).

DISCUSSION

This technique is simple, safe and reliable. A port of any size can be inserted through a small incision without gas leak and with reduced risk of bowel and vascular injury. Traction on the stay sutures eliminates the need to increase insufflation pressure to provide counter-traction. No complications have been noted with this technique which is in routine use in infants in our centre. To our knowledge, this technique is not reported in the literature and it is not taught on surgical skills courses.

Figure 3 Traction on stay sutures during port insertion.

Figure 4 Laparoscopic view with stay sutures visible at 2 and 10 o'clock.