

Laparoscopic percutaneous endoclose closure of a paraumbilical hernia defect

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Abstract

We describe a technique of endoclose closure of a paraumbilical abdominal wall hernia defect when using 5 mm laparoscopic ports.

Introduction

Laparoscopic repair of a paraumbilical hernia is a well recognised technique. There are several methods for tackling the defect left in

the anterior abdominal wall before placement of a mesh. However, the conventional laparoscopic suture technique is not possible if 5 mm ports are used as the needle cannot pass through. We describe a technique of endoclose closure of the abdominal wall defect without resorting to larger ports or needle closure.

Technical note

The borders of the defect are delineated by dissection. An endoclose is passed through one side of the defect, a suture thread anchored in position in the standard fashion (Figures 1A and B).

The next bite is then performed thus. Without making another stab incision, the endoclose is tunneled subcutaneously and a second bite is taken on the other side of the defect (Figures 2A and 2B).

The suture from the first bite is pulled through the endoclose again. This will create

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the two bites on the either side of the defect (Figure 3).

The defect is then closed by tying a knot. This procedure can be performed as many times as required to close the defect.

Discussion

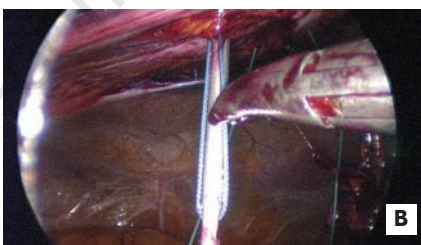
The endoclose tunneling technique allows closure of the defect in the abdominal wall before the application of a mesh. The above technique is useful if the surgeon prefers not to resort to larger ports to allow needles to enter the abdomen. Smaller ports also have the advantage of a smaller scar and a reduced risk of port-site incisional hernia.



A

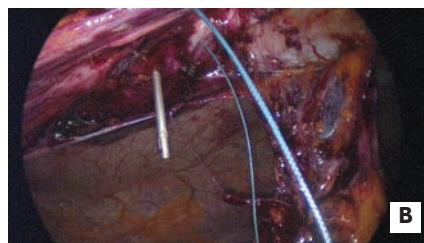


A



B

Figure 2. A) Subcutaneous tunneling of endoclose to bite the opposite side of the defect. B) Laparoscopic view of figure 2A with the suture fed into the endoclose.



B

Figure 1. A) Insertion point of endoclose. B) Laparoscopic view of endoclose bite of hernial defect edge.



Figure 3. Final position of suture ends using the endoclose. A knot is being tied to close the defect.