Laparoscopic Suture Rectopexy

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PURPOSE: This article describes a technique for laparoscopic suture rectopexy and assesses the postoperative results. METHODS: The rectum was fixed to the presacral fascia with five to six sutures. The procedure was performed using a laparoscope in four patients. RESULTS: There were no postoperative complications. In one patient a large enterocele was observed during the operation. This patient developed a recurrence about one month postoperatively. CONCLUSION: Laparoscopic suture rectopexy might be an alternative to open rectopexy for patients with isolated rectal prolapse. [Key words: Rectal prolapse, Surgical technique, Laparoscopy]

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Abdominal rectopexy is the preferred treatment for low-risk patients with rectal prolapse. Procedures involving fixation of the rectum with a mesh have been successfully performed using the laparoscopic approach.[1,2] However, infectious complications might develop after the use of perirectal implants.[3,4] To avoid implantation of foreign material and to minimize perirectal dissection, we have used rectosacral suture fixation as the standard procedure for rectal prolapse.[5] Our technique for performing this operation using a laparoscopic approach is described in this report.

TECHNIQUE

The patients were operated on in the lithotomy position to ensure that the rectum was fixed in a reduced position. After abdominal insufflation of carbone dioxide to 12 mmHg, a 12-mm cannula was inserted adjacent to the umbilicus. A 10-mm, 45°-angle laparoscope was then inserted, and the patient was tilted head down. Three more cannulas were inserted 3 to 5 cm below the umbilicus: one in the lateral part of the right rectus abdominis muscle and two slightly medial to and above the right and left anterior superior iliac spine, respectively. The uterus was sewn to the anterior abdominal wall. After indentification of the right ureter, the peritoneum on the right side of the rectum slightly above the promontorium was incised with scissors. While the rectum was retracted ventrally with a Babcock clamp, the avascular presacral space was entered, and the rectum was mobilized from the sacral hollow. During this dissection the bilobar mesorectum was a helpful landmark. Dissection terminated when the coccyx was reached. Lateral ligaments were not divided. Hemorrhage from a presacral vein occurred in one patient and was controlled with a clip. The mesorectum was then sutured to the presacral fascia, beginning at the level of the distal sacrum. Five to six unresorbable Prolene® sutures (0.0 Polypropylene, Ethicon, Norderstedt, Germany) were placed in a zigzag manner on either side of the midline (Fig. 1). Suture fixation was obtained with a Tayside knot,[6] which was tightened before the next stitch was placed. The uppermost stitch was placed a few centimeters below the promontorium.

RESULTS

The technique was attempted in five women (mean age, 44 (range 25–67) years). One procedure was converted to a laparotomy because of poor exposure of the presacral space. In the remaining four patients the mean operating time was 225 (range, 210–245) minutes. The mean number of days from surgery to discharge from hospital was five (range, 4–6). In all cases the postoperative ileus was remarkably short, and oral intake was resumed at about 24 hours postoperatively in all patients. There were no postoperative complications. A recurrence was diagnosed in one woman in whom a large enterocele was noted intraoperatively. None of the remaining three patients have developed a recurrence at a follow-up of ten months postoperatively.

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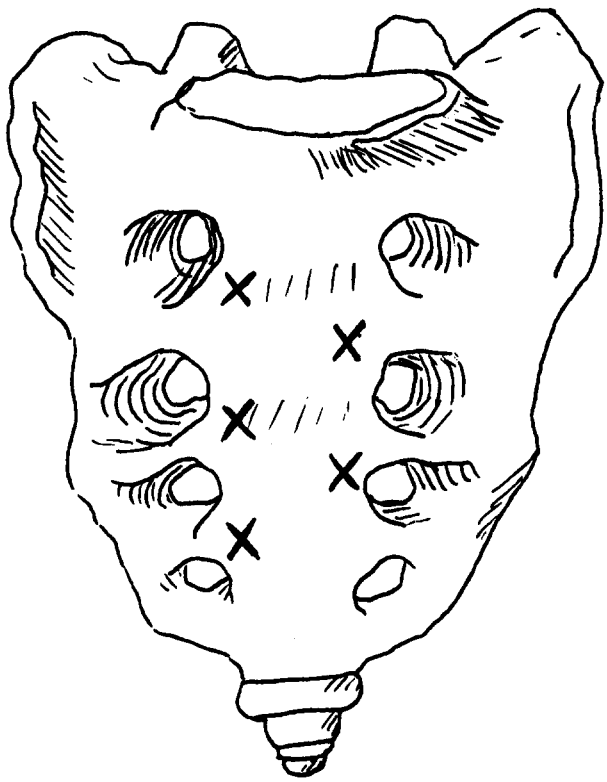

Figure 1. Schematic diagram of the sacrum with the sites of sutures indicated with *crosses*.

DISCUSSION

The anatomic repair performed with the present laparoscopic technique is essentially similar to that obtained with an open suture rectopexy, with a recurrence rate of approximately 5 percent.[5] There are no obvious reasons to believe that the recurrence rate is higher when the procedure is performed through the laparoscope. We believe that the presence of a large enterocele is an indication for a posterior and anterior rectopexy combined with levator repair, which was subsequently performed in the present patient who had a recurrence.

CONCLUSIONS

For the average patient with rectal prolapse, laparoscopic suture rectopexy appears to be a safe and convenient procedure. However, a larger number of patients with longer follow-up is needed to establish its long-term efficacy.

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