



## Surgical technique

# Lateral repair of parastomal hernia

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**Introduction:** Parastomal hernia is a common complication of stoma construction. Although the majority of patients are asymptomatic, about 10% require surgical correction.

**Aims:** We describe a new surgical approach for the repair of parastomal hernias, which avoids both the need for laparotomy and stoma mobilization.

**Patients and Methods:** Nine patients (4 female) with parastomal hernia underwent surgical repair. Median age was 55 years (range 38–73 years). There were 8 para-ileostomy herniae and one paracolostomy hernia. A lateral incision was made approximately 10 cm from the stoma, and carried down to the rectus sheath. The dissection was carried medially towards the stoma, and around the defect in the abdominal musculature. The hernia sac was excised when possible and the fascial defect closed with non-absorbable, monofilament suture. A polypropylene mesh was placed round the stoma by making a slit in the mesh. The skin was closed with subcuticular monofilament absorbable suture.

**Results:** All patients returned to normal diet on the first postoperative day, and were discharged from hospital within 72 h. There were no wound infections, and no recurrences after a median follow up of 6 months (range 3–12 months).

**Discussion:** The technique we describe is simple and avoids the need of laparotomy. The mucocutaneous junction of the stoma is not disturbed, reducing the risk of contamination of the mesh, stenosis or retraction of the stoma. Grooving of the stoma and difficulty in fitting appliances is avoided because the wound is not placed near the mucocutaneous junction. This approach may be superior to other mesh repairs for parastomal hernia.

**Key words:** Parastomal hernia – Para-ileostomy – Paracolostomy – Mesh

Parastomal hernias are common complications of stoma construction:<sup>1</sup> 10% are symptomatic and require surgical correction. Recently, techniques for local repair using monofilament mesh have been described. The

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Table 1 Patient's demographics

Age (years)	Sex	ASA	Type of hernia	Complications	Follow-up (months)
73	F	2	Para-ileostomy	None	5
55	M	E	Para-ileostomy	None	8
60	M	1	Paracolostomy	None	4
40	F	1	Para-ileostomy	None	11
52	F	1	Para-ileostomy	None	4
72	M	2	Para-ileostomy	None	6
38	F	1	Para-ileostomy	None	7
62	M	1	Para-ileostomy	None	3
48	M	1	Para-ileostomy	None	12

major problem with this approach is wound infection. We describe a surgical approach which avoids laparotomy and stoma mobilization.

### Patients and Methods

During 1999, 9 patients with parastomal hernia were treated using this approach. There were 5 males and 4 females, with a median age of 55 years (range 38–73 years). They had 8 para-ileostomy and one paracolostomy hernia (Table 1).

#### Surgical technique

Single doses of cefuroxime 750 mg (Glaxo) and metronidazole 400 mg (Hawgreen) were given intravenously on induction of anaesthesia. An adhesive sterile drape (Ioban: 3M Health Care) was placed over the stoma. A lateral incision was placed in the skin approximately 10 cm from the stoma, and carried down to the rectus sheath (Fig. 1). The skin and the subcutaneous tissue were lifted with forceps. The dissection was carried medially towards and round the gut as it emerges through the abdominal wall. The hernia sac was resected and the fascial defect was closed with non-absorbable, monofilament suture. A polypropylene mesh (Atrium) was placed round the stoma by making a slit in the mesh in a manner similar to placing a mesh round the spermatic cord in inguinal hernia repair. The mesh was loosely sutured in place with 6–8 non-absorbable sutures (Figs 1&2). The skin was closed with subcuticular monofilament absorbable suture.

### Results

All patients returned to normal diet on the first postoperative day, and were discharged home within 72 h. There were no wound infections in this series.

There were no recurrences after a median follow-up of 6 months (range 3–12 months; Table 1).

### Discussion

The indications for repair of parastomal hernia are poor fitting appliances, pain, the presence of prolapse, stenosis and intestinal obstruction. The two main options available for repair are a relocation of the stoma or a local operation. Relocation requires a laparotomy, with all the attendant risks of entering the peritoneal cavity. Local operations are associated with high recurrence of between 53–76%.<sup>2-4</sup> Recent reports suggest that local repair using a non-absorbable mesh has lower recurrence rate (10%), than simple fascial closure.<sup>4,5</sup> The major difficulty with this approach is that



Figure 1 The incision.

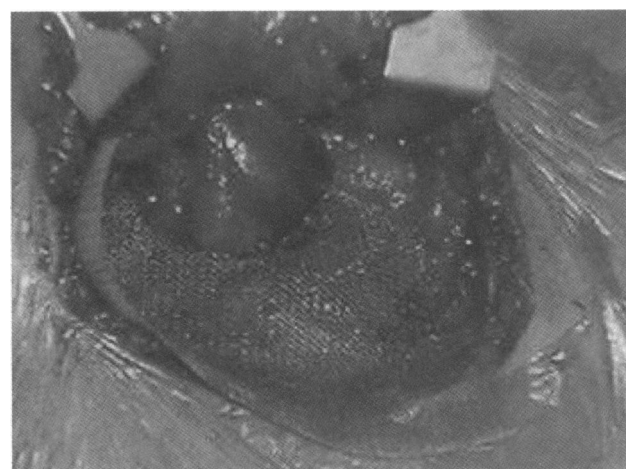


Figure 2 Suturing the polypropylene mesh in place.

the mesh is placed in a contaminated field because an incision is made around the mucocutaneous junction of the stoma. For this reason, an extra peritoneal approach through a laparotomy has been suggested to avoid contaminating the mesh repair.<sup>6</sup>

The technique we describe is simple, without the difficulties of laparotomy. The mucocutaneous junction is not disturbed, making stenosis and retraction unlikely, while avoiding contamination of the mesh. There is no wound under the stoma bag, which can result in grooving, guttering, and difficulty in fitting appliances. It is accepted that the experience is small and the follow-up is short. However, this technique requires further evaluation and we believe will add usefully to the repertoire of operations for repair of parastomal hernia. Furthermore, the success of mesh repair has been documented in other series with longer follow-up.<sup>7</sup> We, therefore, recommend that this approach to be considered in repair of parastomal hernia.

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