

# Spontaneous Enterocutaneous Fistulae 8 Years after a Laparostomy

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## Abstract

A 72-year-old male died following the development of intestinal fistulae 8 years after formation of a laparostomy wound which never completely re-epithelialised. The development of entero-cutaneous fistulae is a well recognised complication of a laparostomy and usually occurs soon after surgery[1],[2]. The causes of fistulation are generally either use of vacuum dressings, extension of active inflammatory bowel disease or anastomotic leakage[3],[4]. Poor nutritional state and other co-morbidities may predispose a patient to anastomotic leakage and so may also be considered risk factors. A literature search showed no published cases of fistula as a complication of laparostomy after such an extended period of time. Abdominal reconstructive surgery should be considered for such non-healing wounds.

## CASE REPORT

A 72-year-old man was admitted as an emergency with 3 separate small bowel fistulae opening into a laparostomy that for 8 years never completely re-epithelialised.

This patient's laparostomy was formed in 2000 after a strangulated incisional hernia (following a radical cystectomy some 5 years previously) resulted in a generalised faecal peritonitis. After a small bowel resection and ileostomy, the abdomen was left open to allow repeated lavage and eventually could not be easily closed. The patient survived multi-organ failure and a cardiac arrest. His ileostomy was closed later in 2000 and he was discharged home with a laparostomy. Over the next 8 years, the wound never completely healed, leaving a persistent 6-7cm area of granulation tissue under a simple dressing.

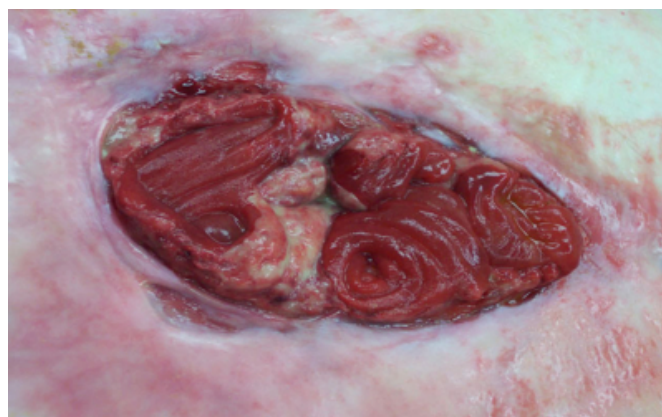
In 2008 he presented as an emergency with 3 small bowel fistulae protruding through the laparostomy wound [Figs. 1 & 2]. These had appeared suddenly after a bout of coughing. There were no signs of sepsis, obstruction or any other systemic upset.

Intra-operatively, three fistulae were found, all within 70cms of each other in the proximal ileum. Two short segments of small bowel were resected and 3 anastomoses made. The abdominal wall could not be closed and two 20x30cm sheets of permacol mesh were used to cover the abdominal contents. These were removed 2 weeks later leaving healthy

granulation tissue below. Unfortunately, after a further 23 days, he went on to develop another, high-output, small-bowel fistula. He remained intermittently septic and hypoalbuminaemic in spite of all support and died of multi-organ failure 3 months after his original admission.

## Figure 1

Figure 1: Close up of laparostomy immediately pre-op. 3 separate loops of small bowel (i.e. 6 lumens) visible through laparostomy wound.



### Figure 2

Figure 2: Fistulae visible through laparostomy immediately pre-operatively. Note urostomy (with bag) on patient's right side and umbilicus midway between urostomy and laparostomy.



### CONCLUSIONS

This case shows that in patients with laparostomy wounds, intestinal fistulation can occur even after many years. The patient in this case had led a largely normal life for 8 years and did not encounter any serious complications from his wound. He was reluctant to have any further surgery partly because of his general frailty.

Laparostomies are difficult to manage in the early postoperative period but most eventually heal and there is increasing experience in repairing the resulting incisional hernia, if desired, at a later date.

The social aspects of living with an unhealed wound for any length of time are difficult and most patients will opt for further surgery even if there is a significant risk it will fail or be associated with a risk to their long-term well-being. This case adds another factor to be considered in these cases; the small risk of entero-cutaneous fistulation.

In summary;

Patients with laparostomies are at risk of spontaneous intestinal fistulation, even after long periods of time.

Abdominal wall reconstruction, which has a high rate of success, should be considered in these cases[<sub>5</sub>].

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