

# Delayed rectal anastomotic dehiscence presenting as a colocutaneous fistula in the popliteal fossa

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Enterocutaneous fistulas are commonly associated with diverticular disease or inflammatory bowel disease. They usually involve the lower abdominal wall. If the process starts retroperitoneally, the resulting fistula will follow a tortuous route, tracking along the inguinal ligament, femoral canal, sciatic or obturator foramen and into the thigh.<sup>1</sup> However, colocutaneous fistulas secondary to anastomotic leaks are rare.<sup>2</sup> We describe an unusual colocutaneous fistula in the popliteal fossa secondary to a delayed anastomotic dehiscence in a man

who had undergone a low anterior rectal resection 4 years earlier.

## Case report

An 82-year-old man presented with increasing swelling and discomfort on mobilizing his right leg. He was afebrile with no other constitutional symptoms. Physical examination revealed a painful right thigh that was swollen, erythematous and cellulitic; there was a large opening in the popliteal fossa discharging feculent material (Fig. 1). Digital rectal

examination revealed that the posterolateral rectal wall was absent from the 3 o'clock to the 9 o'clock position. Blood tests showed leukocytosis and a C-reactive protein value of 241 mg/L. Doppler ultrasonography excluded deep vein thrombosis. Closer questioning revealed that the swelling had developed over the previous 6 months. This had led to recurrent admissions for "cellulitis" and treatment with intravenous antibiotics. Computed tomography confirmed breakdown of the posterior rectal wall and a fistulous tract extending into the right ischioanal fossa and down the posterior thigh compartment (Fig. 2).

At exploratory laparotomy, there was no peritoneal contamination. After thorough irrigation of the diseased colon and rectum an end colostomy was performed. The right fistula was laid open, debrided, given a copious hydrogen peroxide washout and packed with Betadine gauze (Purdue Pharma L.P., Stamford, Conn). Two days later, examination showed a healthy wound. The patient suffered gradual respiratory and renal deterioration secondary to sepsis and died 3 days later.

## Discussion

In November 2001, the patient had a low anterior resection for a giant dysplastic tubulovillous adenoma 8 cm from the anal verge, with formation of a J pouch

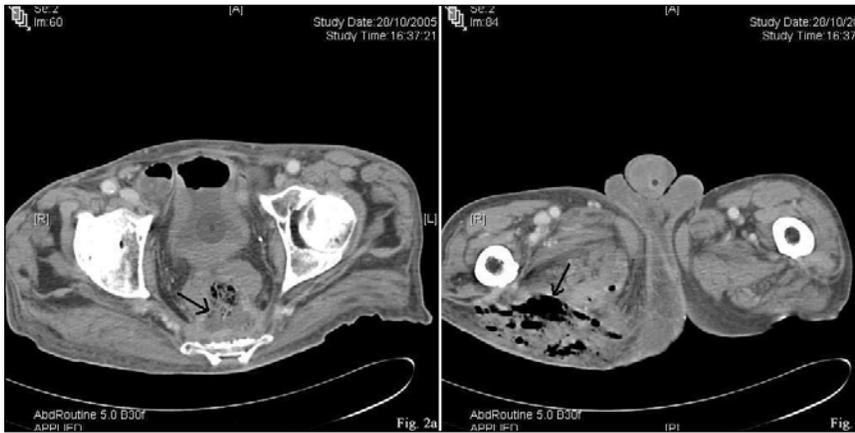


FIG. 1. A feculent discharge can be seen in the right popliteal fossa.

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**FIG. 2.** Computed tomography scan showing breakdown of posterior rectal wall and emphysema in the thigh (arrows).

and covering loop ileostomy. At the time of operation, there was no evidence of an anastomotic leak on air testing. Before closure of the loop ileostomy, 3 serial pouchograms all showed a small contained leak in the presacral space. Examination under anesthesia revealed a 1-cm defect in the posterior aspect of the anastomosis that was discharging pus. This was laid open and curetted. A final pouchogram showed pooling of contrast in the small cavity with no evidence of surrounding leak. This was confirmed by a follow-up flexible sigmoidoscopy as well as biopsies of the anastomotic site that gave negative results. The loop ileostomy was closed 2 years, later, after

examination under anesthesia revealed no abnormality. The patient was aware of the potential risks of poor function and pelvic sepsis.

Owing to the abnormally late presentation, we cannot label this patient's condition as a leak but, rather, as a slow and progressive anastomotic dehiscence secondary to chronic subclinical pelvic sepsis.<sup>3</sup> The absence of peritoneal contamination led to insidious symptoms, and the lack of abdominal symptoms misled diagnosis and delayed treatment. The primary anastomotic defect likely caused a contained leak. The resulting cavity increased the chances of abscess formation, contributing to further breakdown of the

rectal wall. The localized weak spot may have been subjected to increased mechanical stress secondary to chronic constipation and compounded by the many laxative enemas prescribed over the years.

Although a more radical surgical approach might have been appropriate (i.e., excision of the distal colon and rectum),<sup>4</sup> this was deemed too risky in this rather frail, septic patient.

This report raises the question of the safety of closure when covering loop stomas in the presence of a contained leak after low anterior resection of the rectum.

Competing interests: None declared.

### References

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