Unusual presentation of more common disease/injury

Multiple spontaneous enterocutaneous fistulae on back: a rare presentation of colonic malignancy

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Summary

We came across a case presenting with complaint of multiple fistulae present on back and lateral part of abdominal wall discharging faecal matter. Investigations revealed a fistulous tract arising from posterior wall of ascending colon. The patient did not respond to conservative management and therefore was subjected to exploratory laparotomy after thorough investigations. Peroperatively, an ileocaecal mass was found along with a fistulous tract which was arising from the posterior wall of ascending colon and communicating with the skin. A right haemicolectomy was performed followed by ileo-transverse anastomosis. Postoperative recovery was uneventful. The histopathology report came out to be adenocarcinoma of colon.

BACKGROUND

An enterocutaneous fistula is an abnormal communication between the small or large bowel and the skin.¹ An enterocutaneous fistula arising spontaneously without any preceding trauma or surgery is a rare presentation (20–30%) and usually presents at anterior abdominal wall whereas, in our case, it was present on back and right lateral part of abdominal wall. In these cases, the common underlying factors are malignancy, radiation enteritis, intra-abdominal sepsis and inflammatory bowel disease, for example, Crohn's disease.^{2–3} Majority of these cases are managed conservatively, but when associated with presence of diseased bowel, distal obstruction or high output,⁴ they may require surgical intervention.

CASE PRESENTATION

A 50-year-old lady presented with complaints of multiple sites discharging faecal matter on right side of lower back (figure 1) for 3 months associated with off-and-on mild fever. She was tolerating orally. There were no signs of either local or generalised peritonitis. She was investigated thoroughly as follows.

INVESTIGATIONS

Haematology: Haemoglobin 10.1 g/dl, total leucocyte count 11 500/mm³, differential leucocyte count polymorphs 60, lymphocytes 33, eosinophils 06, monocytes 01, erythrocyte sedimentation rate 22 mm/h.

Serum carcino embryonic antigen levels were 4.5 ng/ml (normal)

Ultrasonogram of whole abdomen—an ill-defined heterogeneous mass in right iliac fossa near the ileocaecal junction.

Barium enema (figure 2A)—a wide, irregular fistulous tract extending from ascending colon to skin with two more tracts arising from the aforementioned tract.

Colonoscopy—inflammation with small polypoidal swelling at ileocaecal valve. Rest of the visualised bowel normal. Colonoscopic biopsy revealed adenocarcinoma.

Contrast-enhanced CT abdomen—terminal ileum thickened with strictured segment (figure 2B)

- ▶ caecum-contracted and distorted
- ▶ ascending colon shortened and pulled up with stricture
- ▶ a fistulous tract in the region of ileocaecal junction

Figure 1 Multiple fistulae at right lower back.

Figure 2 (A) Barium enema and (B) CT scan abdomen.

TREATMENT

Initially, she was kept on conservative management (intravenous fluids, antibiotics) but she did not respond. Hence, an exploratory laparotomy was done. Peroperatively, a mass was present in the region of ileocaecal junction along with a fistulous tract arising from the posterior wall of ascending colon and extending up to the skin. There was no ascitis or mesenteric lymphadenopathy and the liver surface was normal. Right haemicolectomy (figure 3 showing irregular ulcerated growth) was done followed by ileotransverse anastomosis and the specimen was sent for histopathological examination which showed adenocarcinoma of colon.

OUTCOME AND FOLLOW-UP

Patient underwent uneventful recovery and was discharged on the eighth postoperative day and is in regular follow-up.

DISCUSSION

There are very few case reports of spontaneous enterocutaneous fistula secondary to malignancy in literature. In 2008, Nagaraja *et al*⁵ published a case report of spontaneous colocutaneous fistula secondary to carcinoma of colon. Rai *et al*⁶ reported a case of spontaneous

enterocutaneous fistula in inguinal region without any underlying factor. Edmunds *et al*¹ provided a comprehensive discussion of enterocutaneous fistulae: important complications included fluid and electrolyte imbalance, malnutrition and generalised peritonitis. Mortality was 62% in patients with gastric and duodenal fistulae, 54% in patients with small-bowel fistulae and 16% with colonic fistulae. Fistula output is a significant single prognostic factor for determining the possibility of spontaneous closure and mortality.⁷ Once the patient is stabilised, resuscitated and the enterocutaneous fistula is controlled, the next steps are to determine whether an abdominal or pelvic abscess is present, and then to define the anatomy of the fistula. CT scan or MRI, contrast studies of the bowel, fistulography and endoscopy may be required to achieve these objectives. CT and MRI are useful to demonstrate intestinal and extraintestinal pathology including residual cancer, abscess, adjacent organ involvement (eg, hydronephrosis or carcinomatosis) and sometimes the anatomy of the fistula.⁸

Surgical therapy should be undertaken in patients without any adverse factors if they are stable, free from all sources of sepsis and can withstand the resection procedure needed for fistula closure.⁹

Irregular ulcerated growth

Figure 3 Irregular ulcerated growth.

Learning points

- ▶ Colocutaneous fistula may be a rare presentation of colonic malignancy even if present on back.
- ▶ Phased treatment is proposed, with the initial emphasis on the treatment of septic foci, malnutrition and fluid and electrolyte imbalance aiming to improve the patient's condition.
- ▶ If required, surgical repair is performed when the patient is stable.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. Edmunds LH Jr, Williams GM, Welch CE. External fistulas arising from the gastro-intestinal tract. *Ann Surg* 1960;**152**:445–71.
2. Joyce MR, Dietz DW. Management of complex gastrointestinal fistula. *Curr Probl Surg* 2009;**46**:384–430.

3. **Michelassi F**, Balestracci T, Chappell R, *et al*. Primary and recurrent Crohn's disease. *Ann Surg* 1991;**214**:230–40.
4. **Martinez JL**, Luque-de-Leon E, Mier J, *et al*. Systematic management of postoperative enterocutaneous fistulas: factors related to outcomes. *World J Surg* 2008;**32**:436–43.
5. **Nagaraja R**, Kudya A, Prasad , *et al*. Spontaneous colocutaneous fistula: a rare presentation of colon carcinoma. *Internet J Surg* 2008;**15**:1.
6. **Rai A**, *et al*. Spontaneous enterocutaneous fistula- a rare presentation. *Internet J Surg* 2009;**18**:2.
7. **Campos AC**, Andrade DF, Campos GM, *et al*. A multivariate model to determine prognostic factors in gastrointestinal fistulas. *J Am Coll Surg* 1999;**188**:483–90.
8. **Schmidt S**, Chevallier P, Bessoud B, *et al*. Diagnostic performance of MRI for detection of intestinal fistulas in patients with complicated inflammatory bowel conditions. *Eur Radiol* 2007;**17**:2957–63.
9. **Evenson AR**, Fischer JE. Current management of enterocutaneous fistula. *J Gastrointest Surg* 2006;**10**:455–64.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Kumar A, Pahwa H, Srivastava R, Kumar R. Multiple spontaneous enterocutaneous fistulae on back: a rare presentation of colonic malignancy. *BMJ Case Reports* 2012;10.1136/bcr-2012-007119, Published XXX

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