

Letters

Profuse per rectal bleeding due to erosion of the inferior epigastric artery following a catheter tube caecostomy.

Editor,

We describe a case of profuse per rectal bleeding due to erosion of the right inferior epigastric artery, by a Foley catheter, used as a tube caecostomy, for decompression of underlying colonic pseudo-obstruction.

Case history: A sixty-four year old male was admitted to the intensive care unit with shortness of breath secondary to left ventricular failure, and chronic obstructive airways disease. He developed gross abdominal distension, which did not settle with conservative management. Imaging showed dilated loops of large bowel. Exploratory laparotomy revealed gross dilatation of the caecum and ascending colon. No mechanical cause of obstruction was evident. A 22 gauge Foley catheter was introduced through the base of the excised appendix, after decompression of the colon with a Savage's decompressor. The Foley catheter had been introduced into the peritoneal cavity through a prior stab incision in the anterior abdominal wall, overlying the right iliac fossa.

On the 9th post-operative day, the patient developed profuse fresh bleeding per rectum, associated with considerable bleeding into the caecostomy bag, from which he rapidly became shocked. Initial conservative management was abandoned in favour of a second laparotomy. Thorough examination of the colon revealed no palpable lesions. At the time of taking down the caecostomy, a copious bleed from the right inferior epigastric artery was detected, adjacent to the tract formed by the Foley catheter through the anterior abdominal wall. Following ligation of the vessel the patient's condition stabilised. No further rectal bleeding or discharge was recorded post-operatively.

Discussion: The management of pseudo-obstruction¹ is often conservative. Decompression can be accomplished by the passage of a sigmoidoscope and flatus tube, or colonoscopy. Benacci et al² conducted a review of patients at the Mayo clinic to determine the effectiveness of catheter tube caecostomy as a means of colonic decompression. They concluded that it was expeditious and safe, with acceptable morbidity in the majority of patients.

Gradual erosion of the right inferior epigastric artery by a caecostomy tube resulting in serious haemorrhage has not been previously documented. Computerised search of Medline and Pub Med databases did not reveal a single recorded case.

The inferior epigastric artery³ originates from the external iliac artery just superior to the inguinal ligament, runs superiorly in the transversalis fascia, and enters the rectus sheath below the arcuate line, lying deep to the rectus abdominis. It forms the lateral boundary of Hesselbach's triangle, which is bounded inferiorly by the inguinal ligament and medially by the rectus abdominis. Ideally any catheter brought out through the anterior abdominal wall should be sited lateral to the

Hesselbach's triangle, to prevent any deleterious effects to the inferior epigastric artery. In this case the Foley catheter used for the tube caecostomy had been impinging on the artery for nine days prior to eroding its wall. The resultant haemorrhage from the artery seems to have tracked down into the caecum, via the caecal-cutaneous fistula already formed by the catheter tube caecostomy. The haemorrhage, having gained access to the lumen of the large bowel, ultimately manifested as massive per rectal bleeding. Massive bleeds from a damaged inferior epigastric artery usually manifest as haematomas in the rectus abdominis muscle, but in this case the established caecal-cutaneous fistula appears to have diverted the blood into the caecal lumen.

Conclusion: This is the first documented case of severe haemorrhage associated with erosion of the right inferior epigastric artery by a tube caecostomy. Correct placement of the caecostomy tube lateral to Hesselbach's triangle should prevent this complication from occurring.

The Authors have no conflict of interest.

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Routine Rectal Biopsy?

Editor,

We describe a case of Non-Hodgkin's high grade B cell lymphoma of the rectum, which presented with a short history mimicking a perianal abscess. Careful examination under anaesthetic (EUA) and biopsies helped to clinch the diagnosis.

Case Report: A 76-year-old patient was admitted as an emergency with marked perianal pain for 1 week along with episodes of faecal incontinence during this period. The patient was being treated by the General Practitioner with antibiotics for suspected perianal infection.

On examination there was no induration around the anus but there was a point at which patient was maximally tender. The patient was examined by three senior clinicians, they all found different points of maximum tenderness. There was no obvious abscess. Investigations on admission including full blood picture, differential count, and inflammatory markers, were all within normal limits.

The patient underwent EUA rectum; no abscess, fissure or fistula was found. Rigid sigmoidoscopy revealed diffuse non-specific redness of the rectal mucosa just beyond the dentate line. Random biopsies were taken. Post operatively the patient continued to experience severe pain and remained incontinent.

Pathology showed multiple fragments of rectal mucosa heavily infiltrated by a diffuse and sheeted proliferation of lymphoid cells with intermediate sized nuclei and little cytoplasm. The appearances were those of Non-Hodgkin's lymphoma - intermediate to high grade B-cell type. CT scan revealed significant soft tissue thickening of the anus extending into the proximal rectum. Maximum size measured 7cm. There was a suspicious lesion in the liver, which was confirmed to be lymphomatous on targeted ultrasound scan. There was no evidence of lymphadenopathy.

Due to liver involvement and infiltration around the anus the patient was started on chemotherapy (CHOP). The pain and incontinence all but disappeared after the first dose of chemotherapy and the tumour shrank significantly. Only slight thickening remained in the bowel wall at end of 2 years on repeat CT scan. The liver lesion remained unchanged. The patient remains well and asymptomatic after four years.

Discussion: Most cases of perianal pain are due to fissure in ano, perianal abscess, fistula in ano and low rectal or infiltrating carcinoma of the anal canal.

Lymphoma of the rectum is a rare condition and accounts for less than 1% of rectal malignancies. Involvement of the anal canal and the sphincters is even rarer.^{1,2} Lymphoma of the rectum accounts for only 4% of GI lymphomas.³ Primary colorectal lymphoma may present in a myriad of ways including perianal pain 9%, incontinence 2% or simply as an incidental finding 9%.⁴

This patient's perianal pain did not seem unusual at the beginning. The history of incontinence did raise the possibility of an infiltrating malignancy but the short one week history and the absence of any induration on examination led us to believe otherwise. The patient had no other constitutional symptoms to direct us towards the diagnosis of a malignancy or even abscess. The difference in the examination findings between different examiners and absence of an obvious cause such as fissure or abscess raised suspicions towards an unusual cause.

Conclusion: Careful EUA and random rectal biopsy may be indicated in all patients with acute perianal pain with no evidence of usual causes such as abscess, fissure and fistula.

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Peritoneal encapsulation: presenting as small bowel obstruction in an elderly woman.

Editor,

Small bowel obstruction is one of the common surgical emergencies. It is most often due to adhesions following previous operations or obstructed hernias. Peritoneal encapsulation is one of the very rare causes of intestinal obstruction, often diagnosed at laparotomy. This condition is largely asymptomatic and found incidentally at laparotomy or autopsy. Only a few cases have been reported in the literature and presentation as bowel obstruction is extremely rare. We report a case of peritoneal encapsulation presenting as a small bowel obstruction following herniation of the bowel loop through the sac in an elderly woman. Awareness of this condition will facilitate proper management.

Case report: An 82 yr old woman presented with three days history of lower abdominal pain, progressive abdominal distension and vomiting. She was previously investigated with barium enema for intermittent lower abdominal pain, which showed diverticular disease involving the sigmoid colon. There was no previous history of open abdominal operation, peritonitis or prolonged use of beta-blockers. Physical examination showed asymmetrical abdominal distension involving mainly right lower and mid abdomen. There was mild tenderness in the right iliac fossa with palpable bowel loops, and a reducible right femoral hernia. Abdominal X-ray showed a few dilated small bowel loops in the lower abdomen (fig 1). Inflammatory markers were mildly raised, otherwise blood investigations were unremarkable.

A provisional diagnosis of partial obstruction was made. She was treated conservatively overnight but symptoms gradually worsened. An obstructed femoral hernia was suspected and an emergency laparotomy performed. There was a shiny white peritoneal layer behind the peritoneum and bowel from the duodeno-jejunal flexure to the ileocaecal junction was found to be encased in a sac. A loop of terminal ileum was herniated through the sac with a tight constriction. The sac was excised with the release of the intestinal loop. Peritonitis developed post-operatively and at repeat laparotomy, small bowel loops were grossly distended throughout their length and were densely matted and adherent to the ischaemic terminal ileum loop and mesentery. A long segment of ileal loop was resected and a jejuno-colic anastomosis established, and a duodenal tear repaired. Postoperatively she developed pulmonary oedema, hypoproteinaemia, and hypoalbuminaemia and died from a chest infection. A post-mortem was not performed. Histology of the sac was not available but the morphological features were consistent with peritoneal encapsulation.

Discussion: Peritoneal encapsulation is a rare developmental abnormality in which part or the entire small bowel is encased in an accessory sac derived from the yolk sac. This is attached



Preoperative abdominal X-ray showing dilated small bowel loops

to the ascending and descending colon laterally, the transverse mesocolon superiorly and merges with posterior parietal peritoneum inferiorly. The membrane has two openings, one around the duodenal-jejunal flexure and the other at the ileocaecal junction. Greater omentum covers the sac but is not attached to it. It was first described by Cleland in 1868. Less than 20 cases have been reported and the diagnosis was made incidentally in most of these¹. The condition is largely asymptomatic, but some cases have presented as bowel obstruction¹.

Diagnosis may be impossible preoperatively. Naraynsingh² described two clinical signs, which help in diagnosis; a fixed, asymmetrical distension of the abdomen, which does not vary with peristaltic activity and a difference in the consistency of the abdominal wall to palpation. Both these findings can also be present in abdominal cocoon (Idiopathic sclerosing encapsulating peritonitis - SEP). Plain radiography in peritoneal encapsulation is usually normal or can show features of obstruction. Computed tomography may visualise the membrane. The membrane is not adhered to the inner bowel loops. When encountered during the exploration for bowel obstruction, it can be removed and excised easily.

Peritoneal encapsulation, Idiopathic SEP (abdominal cocoon) and SEP of known cause are different rare pathological conditions. Cases have been reported with features of abdominal cocoon as peritoneal encapsulation.³ Tsunoda⁴ described a case of idiopathic SEP combined with peritoneal encapsulation proposing a congenital theory for abdominal cocoon; a chronic inflammatory process of “developmental peritoneal encapsulation” which looks like a cocoon. The consistent siting of the lesion with invariable involvement of

the ileocaecal junction also supports the idea of developmental abnormality in abdominal cocoon⁵.

Foo⁶ reported 10 cases of small bowel obstruction in young girls who had an obstruction due to a membrane covering the small intestine, which they described as “Abdominal Cocoon”. The fibrous membrane showed signs of chronic inflammation and it was postulated that the condition is due to the retrograde menstruation with sub clinical viral primary peritonitis, resulting in the development of an encapsulating membrane on the intestine. Since then it has been described in all age groups and genders. It is not restricted to the tropics or subtropics.

Abdominal cocoon (Idiopathic SEP) is thought to be an acquired condition of unknown aetiology. It usually presents as bowel obstruction either by extra luminal compression by a constricting band or by torsion of the bowel. Development of sclerosing encapsulating peritonitis has also been reported from various known causes. Cases of small bowel obstruction due to sclerosing encapsulating peritonitis in patients on long-term proctolol have been described as early as 1974.⁷ ⁸ It was a well recognized complication of proctolol and it is no longer in use. Other common causes include peritoneal dialysis and peritoneo-venous shunting. It is reported rarely in patients with tuberculosis, sarcoidosis, familial Mediterranean fever, gastro intestinal malignancy, protein-S deficiency, after liver transplantation, fibrogenic foreign material and latinised thecomas.

Various imaging findings have been described for abdominal cocoon, including delayed bowel transit, peritoneal and bowel calcification, bowel wall thickness, loculated ascites and circumscribed mass of bowel loops conglomerated in one area⁹ (cauliflower sign). A thick fibrinous membrane surrounding the bowel loops can be visualised by CT scan while it also gives information on the degree of obstruction and the types of bowel loops involved¹⁰. In peritoneal encapsulation the membrane is free from underlying bowel loops and the histology of the sac is predominantly mesothelial with or without chronic inflammation or fibrosis¹. A thick fibrocollagenous membrane encasing the bowel loops along with some internal adhesions characterises the sac in the abdominal cocoon. At times it may be difficult to peel it off or excise it without perforating the bowel.

The diagnosis is intra-operative in majority of cases and excision of the sac with enterolysis is all that is required. Bowel resection may be necessary if the membrane cannot be stripped atraumatically or with obvious gangrene of the bowel. Recently there have been reports of SEP secondary to chronic peritoneal dialysis treated successfully with immunosuppressive therapy and tamoxifen⁹. Both peritoneal encapsulation and idiopathic SEP are rarely documented and poorly understood surgical problems. A better awareness of these conditions will facilitate the proper management if encountered as an emergency. Distinction between these two entities is still not clear and needs further study.

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