Enteric duplication cyst as a cause for small bowel obstruction in adulthood

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ABSTRACT
We report a case of a patient presenting with small bowel obstruction secondary to an enteric ileal duplication cyst. Although common in infancy, they are rarely seen in adults. Radiologically they may be difficult to distinguish from a Meckel diverticulum and often the diagnosis is made retrospectively. Optimal management of the asymptomatic adult is unclear.

A 56-year-old male presented with a 24-hour history of colicky left upper quadrant abdominal pain and distension, with progression to nausea, vomiting and obstipation. He had no previous intra-abdominal surgery. An abdominal radiograph showed dilated loops of small bowel. A subsequent CT scan showed multiple loops of dilated small bowel proximal to a dilated tubular structure arising from small bowel in the right upper quadrant. This tubular structure appeared to be a Meckel diverticulum (MD) causing small bowel obstruction.

Figure 1: Coronal CT showing small bowel obstruction with an associated tubular structure in the right upper quadrant.
The patient proceeded to a laparotomy where this tubular structure was noted to be arising from the mesenteric border of the mid-jejunum. This had caused a loop of small bowel to volve, resulting in subsequent small bowel obstruction. This and a margin of small bowel either side was resected using a linear stapler and a side to side anastomosis fashioned.

The macroscopic pathological findings of the specimen were of a 60mm blind ended tube lined by normal small bowel mucosa along with an adjacent non-communicating unilocular 10mm cyst. Microscopic findings were consistent with an intestinal duplication cyst with no evidence of malignancy or acute inflammation. The post-operative period was uncomplicated.

Discussion

Enteric duplication cysts (EDC) are rare congenital malformations with an estimated incidence of approximately 1 in 10,000. They may be present from mouth to anus, however, up to 50% of enteric duplications cysts are found in the small bowel, with the ileum being the most frequent site of origin.\(^1\) They typically arise from the mesenteric margin of the bowel, and multiple duplications may be present.\(^1\)–\(^4\) They tend to share a common blood supply with the bowel segment of origin.

Over 80% are diagnosed in the paediatric population and they often present with obstruction or a palpable mass.\(^4\) In adulthood, EDCs are often asymptomatic and diagnosed incidentally. The clinical presentation of symptomatic EDCs varies according to their location and proximity to adjacent structures, symptoms include abdominal pain, distention, mass and dysphagia.\(^2\) They may also present secondary to complications such as haemorrhage, volvulus, perforation, obstruction and malignancy. Ultrasound and abdominal CT may be helpful in establishing a diagnosis, however, the lack of common clinical features and their rarity make pre-operative diagnosis a challenge. Multiple case reports describe the difficulty in differentiating an enteric duplication cyst from the more common MD due to similar clinical manifestations and complications.\(^5,\,6\) This case report reaffirms this diagnostic challenge.

To date, there is no consensus on the management of asymptomatic cases. Surgery is recommended for symptomatic cases and in the setting of complications.\(^4\) Malignant transformation is a rare but significant complication of EDCs.\(^7\) A previous review reported that 23% of adult EDCs originating from the ileum had histological evidence of small bowel adenocarcinoma.\(^8\) Therefore, the potential for malignancy should always be considered and incorporated into the decision-making process, particularly in the management of asymptomatic cases in adults.

Competing interests:
Nil.

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