CASE REPORT

Caecal duplication cyst mimicking intussusception

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SUMMARY

Cystic caecal duplication is a rare congenital anomaly. We report a case of an infant, who presented with bilious vomiting and abdominal distension. On ultrasonography, intussusception with a cyst as a lead point was present in the right iliac fossa. On exploration, there was no evidence of intussusception, only caecal duplication cyst was found. To date, only three cases of caecal duplication which mimicked intussusception have been reported in the English literature.

INVESTIGATIONS

His complete haemogram and renal function tests were within normal limits. An erect abdominal x-ray revealed multiple air fluid levels without any signs of pneumoperitoneum. On ultrasonography, a well-defined cystic lesion with gut pattern suggestive of intussusception was found in the right iliac fossa (figure 1A). Target sign typical of an intussusception was present with a cystic lesion at the head of the intussusceptum segment as a lead point (figure 1B,C).

TREATMENT

The patient was taken up for surgery after resuscitation without any attempt of radiological reduction. On exploration, there was no evidence of intussusception although cystic lesion could be felt inside the caecum (figure 2). Cyst of 30 mm×25 mm×25 mm size was present on the mesenteric border, non-communicating and was filled with mucoid material. Rest of the bowel was healthy. Caecum was resected and ileo-ascending anastomosis was performed.

BACKGROUND

Cystic caecal duplication is an exceedingly rare congenital anomaly. It can present with intestinal obstruction, intussusception, volvulus or mass in the right iliac fossa. We report a case of a patient who had intussusception with cystic lesion as a lead point on ultrasonography but had no intussusception on exploration.

CASE PRESENTATION

A six-month-old boy, weighing 6.2 kg, presented to us with bilious vomiting and abdominal distension for 2 days. There was no history of constipation or red currant jelly like stools. On examination, the baby was haemodynamically stable. Abdomen was slightly distended but soft and non-tender. A lump was felt in the right iliac fossa.

OUTCOME AND FOLLOW-UP

Postoperative recovery was uneventful. Histopathology was consistent with caecal duplication cyst.

DISCUSSION

Alimentary tract duplications are rare congenital anomalies which may occur anywhere from mouth to

Figure 1 Ultrasonography abdomen, (A) reveals a well-defined cystic lesion in the right iliac fossa with a gut pattern, suggestive of duplication cyst, (B) reveals the typical target sign of intussusception and (C) demonstrates the cystic lesion at the head of intussusceptum segment.

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Figure 2 (A, B) showing cystic structure (arrow head) in resected specimen and (C) showing opened up cyst.

anus. Terminal ileum is the most common site. Colonic duplications occur in 13% of patients. Caecal duplications are rarest of colonic duplications presenting usually in infancy and childhood. Less than 35 cases of cystic duplication of caecum have been reported in the English literature in last 50 years.^{1–13} They can present with intestinal obstruction either because of cyst completely obstructing the bowel lumen, cyst acting as a lead point for intussusception or volvulus around the cyst. A lump may be present in abdomen either due to secretions inside the cyst or intussusception. They can occasionally undergo malignant change and carcinoid tumour in cyst wall has also been reported in the literature.⁴ An interesting case of malleable duplication cyst in caecum has been reported with different shapes on different investigations.¹³

In previous days, contrast enema used to be diagnostic method for intussusception but presently it is used only for therapeutic reduction. Ultrasonography has emerged as a useful diagnostic aid. Ultrasonography has high accuracy in diagnosis of intussusception.¹⁴ Stringer *et al*¹⁵ and Pracros *et al*¹⁶ found ultrasonography safe and reliable with neither false-positives nor false-negatives. In several other recent studies it has got a specificity of more than 97% and a positive predictive value of 85–100% with very few false-positive results. In our case, ultrasonography revealed intussusception but the same was not found at the time of surgical exploration. A possible explanation may be that though the appearance on ultrasonography mimicked intussusception but it may be because of bowel thickening. The other explanation may be that it was a transient intussusception which resolved spontaneously by the time we took the patient for surgery. We did not consider the patient for radiological reduction due to the presence of cyst as a lead point.

We reviewed the literature for similar presentation and found that three cases of caecal duplication have been reported, who had preoperative evidence of intussusception (crescent sign on contrast enema) but on exploration intussusception was not there.^{10–12}

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Learning points

- In patients presenting to us with intussusception with cystic lesion as a lead point, the possibility of duplication cyst should be considered.
- Radiological reduction is not advised when a lead point is present.
- Duplicated segment should be resected and end to end bowel anastomosis should be performed.

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