Neonatal-perforated appendix forming antibioma masquerading as duodenal duplication

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DESCRIPTION

A 17-day-old previously healthy breastfed neonate with normal antenatal scans born at full term by an emergency caesarean section for failure to progress and passed meconium in the first 2 h of life, became irritable with vomiting, refusal of feeds and fever. On examination, he was febrile (38.5), tachycardic with a tender abdomen. He underwent a partial septic screen at the district general hospital which showed normal urine, cerebrospinal fluid (CSF) and chest X-ray and the white blood cell count was $26 \times 10^9/L$, neutrophils $16.4 \times 10^9/L$ and C reactive protein (CRP) 283 mg/L. He was resuscitated and started on cefotaxime and metronidazole. An abdominal ultrasound showed a cystic lesion between the liver and the duodenum and the patient was transferred to us on the third day. He settled, became afebrile but had an abdominal mass and the CRP was 136 mg/L. An abdominal CT scan confirmed a cystic lesion with enhancing walls, air fluid levels and in proximity of duodenum indicating a duplication cyst (figure 1). Examination under anaesthesia showed a palpable mass in the right upper quadrant and laparoscopy converted to a

laparotomy revealed an appendicular antibioma with walled-off perforated appendicitis with pseudocyst formation in the subhepatic position, which was drained and an appendicectomy performed. Postoperative recovery was uneventful. Histology confirmed acute appendicitis with antibioma/pseudocyst formation. He is well and thriving at a 6-year follow-up. Neonatal appendicitis in a term infant with mass, pseudocyst or antibioma formation is very rare and only reported once.¹ The ultrasound findings were secondary to formation of postnatal pseudocyst following administration of higher antibiotics soon after the appendix was perforated. Neonatal appendicitis is seen in male, preterm, necrotising enterocolitis, Hirschsprung's disease, cystic fibrosis, meconium plug syndrome.²⁻³ One way to immediately rule them out was to investigate for each of them or to follow them clinically if he develops any symptoms. This fact was discussed with the parents and they wanted to observe and investigate only if symptomatic. Whenever possible, a diagnostic laparoscopy with a view to therapeutic intervention should be performed.

Figure 1 (A–C) An abdominal ultrasound scan showing dumbbell-shaped thick-walled cystic lesion. Contrast-enhanced CT scan showing contrast-enhancing cyst walls with air fluid in the cavity and no bowel contrast in the subhepatic cystic lesion. AA, appendicular antibioma; D, duodenum; GB, gall bladder; RK, right kidney.

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Learning points

- ▶ Neonatal appendicitis forming an antibioma or a pseudocyst postnatally is a rare complication in a term neonate.
- ▶ Coexisting diseases and predisposing factors need to be ruled out clinically or by investigations.
- ▶ Prompt recognition of sepsis and broad spectrum antibiotics may wall off appendicitis even in term-healthy neonates forming a thick-walled cyst containing sterile fluid which constitutes an antibioma with high CRP, but a clinically healthy baby with an abdominal mass.

Contributors All authors have actively contributed to the clinical and operative management of this case and active participation in preparation, data gathering, writing, analysing and critically appraising this manuscript.

Competing interests None.

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