RECURRENT INTUSSUSCPTION IN A CHILD; WHAT IS THE CULPRIT?

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Introduction

Intussusception is a common cause of intestinal obstruction in pediatric age group. Early detection by clinical and radiological evaluation followed by adequate resuscitation and appropriate intervention are important keys for good patient's outcome.

Caecal duplication cyst of the intestine is a rare congenital anomaly characterized by the presence of ectopic gastrointestinal mucosal epithelial lining that form a cystic or tubular structure that is separate but in proximity with the caecum[1,2,6]. Being the rarest site of enteric duplication cyst, this condition is one of the reported lead points to cause intussusception[4].

Case Summary

A 7-month-old child presented to us with acute inconsolable cry without other classic symptoms of intussusception. The child was dehydrated with normal abdominal examination. Blood counts was normal and the abdominal x-ray was also unremarkable.

Abdominal ultrasonography then revealed intussusception with a suspected lead point at caecum (Image 1). Patient underwent a successful hydrostatic reduction but the condition recurred the following day. However, a repeat hydrostatic reduction was unsuccessful, thus patient was transferred to tertiary center for further management. Patient underwent right hemicolectomy with primary anastomosis. Intraoperatively noted colo-colic intussusception and multiloculated cystic mass in the caecum (Image 2).

Post-operative recovery was unremarkable and the histopathology examination of resected specimen consistent with caecal duplication cyst.

Discussion

Intussusception is a common surgical emergency in infancy and early childhood[4]. It possesses some degree of challenge in diagnosing it clinically as the typical text book presentation of red currant jelly stool is actually a late presentation of intussusception. Abdominal ultrasonography is the imaging modality of choice to aid in diagnosing intussusception as the sensitivity and specificity is almost 100% in the hand of experienced ultrasonographer[3,8]. Furthermore, this condition can be caused by spontaneous (idiopathic) or underlying pathological lead point with the incidence of the latter, increases with age[8]. Treatment includes hydrostatic reduction and surgical resection especially in the presence of pathological lead point or failed reduction/ recurrence.

Enteric duplication cyst, on the other hand is a rare condition and even colonic duplication cyst comprises about only 4-18% of all the cases where caecal duplication cyst being the rarest[4,6]. This condition may present at any age with intestinal obstruction, abdominal mass, intussusception, gastro-intestinal bleeding or even abdominal pain mimicking appendicitis[7]. Hence, duplication cyst must be in the list of differentials for acute abdomen in pediatric age group. Being one of the potential pathological lead point for intussusception[5], surgical resection with primary anastomosis is the definitive treatment for this condition[6].

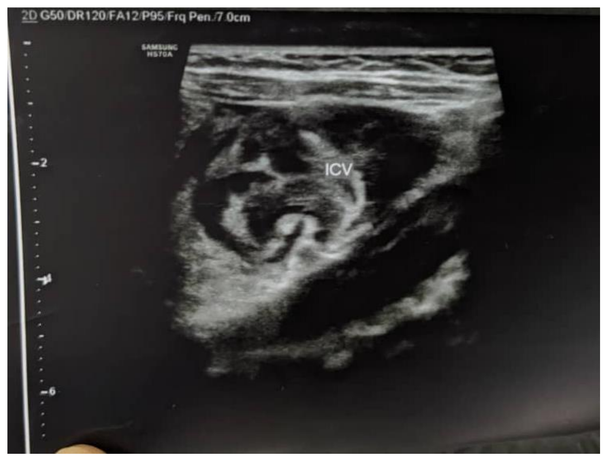

Image 1: Ultrasound image showing target sign with multi-cystic lesion suggesting lead point

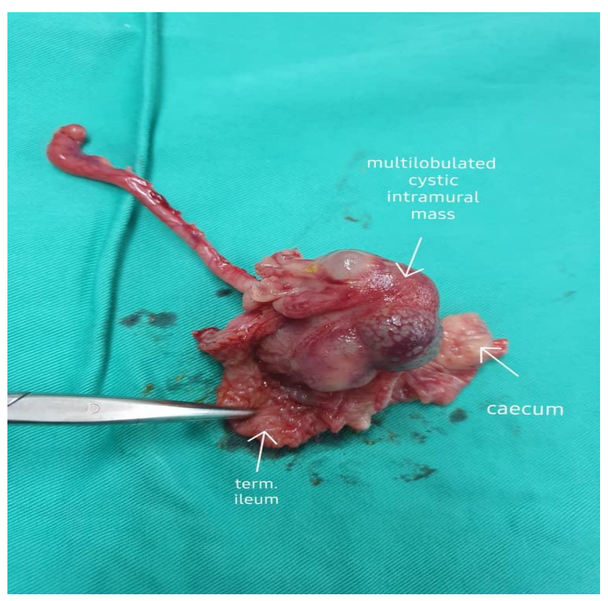

Image 2: Cross section of the caecum showing multilobulated cystic intramural mass

Conclusion

Intussusception is a serious condition, common but remain a challenge for the clinician to determine the diagnosis. Recurrent intussusception following successful hydrostatic reduction should alarm the surgeon for the possibility of more sinister pathology such as duplication cyst in which the child will be definitely subjected to surgical intervention.

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