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Case report

Inverted appendix mistaken for a polyp during colonoscopy and leading to intussusception

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Abstract

A spectrum of appendiceal diseases, ranging from simple mucous distension to acute perforated appendicitis, are seen in patients with CF. We report a 6 year old boy with CF and recurrent periumbilical pain. During colonoscopy, a fleshy pedunculated mass at the junction of the ascending colon and caecum was mistaken for a polyp and excised. However, histopathological examination suggested it was a segment of inverted appendix. The remnant of the inverted appendix was subsequently found to be associated with an intussusception.

Keywords: Chronic intussusception; Nonischaemic intussusception; Incomplete intestinal obstruction; Cystic fibrosis

1. Case report

A 6 year old boy known to have cystic fibrosis (CF) presented to our tertiary centre with an 8 week history of recurrent periumbilical pain, 1–2 hard stools daily, poor appetite and 2 kg weight loss. In the preceding week he had had non-bilious vomiting and fresh blood in the stools. Examination revealed mild abdominal distension and soft nontender mass in the right upper quadrant. However, no masses were identified on ultrasound. A fleshy pedunculated mass, thought to be a polyp, at the junction of the ascending colon and caecum was noted during colonoscopy and was excised with diathermy (Fig. 1). The patient's recovery from the procedure was uneventful. However, his abdominal pain persisted and ultrasound examination 2 weeks later showed an intussusception extending to the splenic flexure. At laporotomy, manual reduction was possible for only part of the intussusception and a limited right hemicolectomy was performed. This resected segment revealed the remnants of an intussuscepted inverted appendix. It is likely that a portion of the inverted appendix had been mistaken for a 'polyp' at colonoscopy. Indeed, histopathological examination of the 'polyp' showed an inverted wall segment of a 2 cm long diverticulum of colonic origin containing inspissated hypereosinophilic secretions, as is typical in CF.

2. Discussion

Appendiceal inversion was first described in 1858 [1] and its association with intussusception has been classified into four types [2]. It is rare and a prevalence of 0.01% was reported from a 40 year study of 71,000 appendicectomy specimens [3]. An inverted appendix along with chronic non-ischaemic intussusception is unusual in

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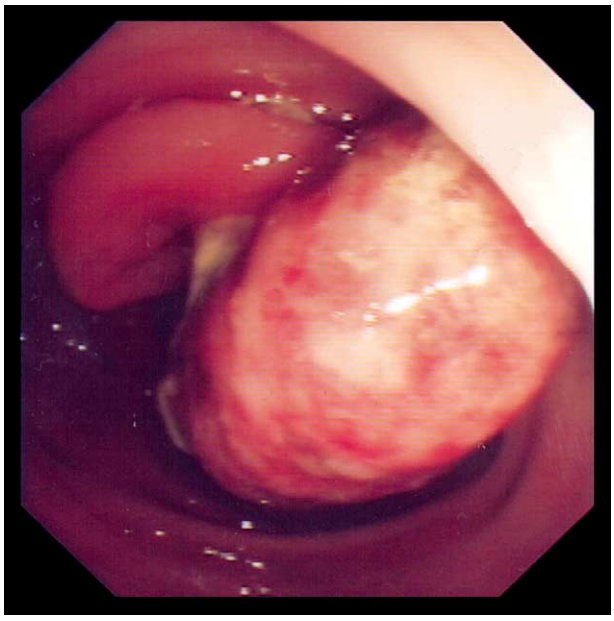

Fig. 1. The fleshy pedunculated mass at the junction of the ascending colon and caecum seen during colonoscopy. This was mistaken for a polyp and excised with diathermy.

healthy children but a recognised complication of CF [4]. In patients with CF, submucosal gland hyperplasia and inspissated secretions can make the appendix bulky and heavy, and thus predispose to intussusception [5,6]. An intussusception in CF may not cause complete obstruction, is rarely acute, can reduce spontaneously and is often overlooked [6]. Both appendiceal disease and intussusception may cause diagnostic problems in patients with CF and should be considered in the differential diagnosis of abdominal pain. Awareness of the atypical presentation and a high index of suspicion are necessary to avoid delay in diagnosis. Additionally, this case highlights that inverted appendix must be considered in the differential diagnosis when a 'polyp' is seen on colonoscopy.

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