Appendiculo-caecal intussusception

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INTRODUCTION

Intussusception of the appendix is an uncommon condition and may present as an acute abdomen. The diagnosis of which is rarely made pre-operatively. In this case report we describe a case of intussusception of a normal appendix that presented as recurrent appendicitis.

Acute abdominal pain is a problem frequently encountered in clinical practice, yet intussusception of the appendix is rarely considered as the cause. This is because of its very low incidence. Another reason is because of its tendency to present with symptoms similar to more common surgical conditions, such as constant or colicky abdominal pain with or without altered bowel habit, or asymptomatic rectal bleeding.¹ In this paper we describe a case of intussusception of a normal appendix.

CASE REPORT

A 45-year-old south Indian female presented with pain in the right lower abdomen since six months and increased pain since one month. The pain was a generalized dull ache with intermittent colic in the umbilical region and right iliac fossa. There was no history suggestive of fever, weight loss, and altered bowel habits. The patient underwent total abdominal hysterectomy 15 years back.

On general examination, her vital parameters were stable. On Abdominal examination there was tenderness with moderate guarding over the right iliac fossa maximum in the region of the Mc Burney's point. Rectal and vaginal examination did not reveal any abnormality.

Her haemogram, liver functions, renal profile, blood sugars, abdominal and chest radiograph were normal. An abdominal ultrasound revealed a mass in the right iliac fossa measuring $3 \times 3 \text{ cm}^2$ suggestive of appendicular mass. The differential diagnosis

Figure 1 Showing intussuscepted appendix into caecum on laparotomy.

Figure 2 Trying to release the adhesions of the intussuscepted appendix into caecum.

Figure 3 Resection of terminal caecum and appendix.

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included appendicular mass, ileocaecal tuberculosis, carcinoma caecum, and recurrent appendicitis. An elective laparotomy revealed intussusception of the appendix into the caecum below the ileocaecal junction (Figures 1 and 2). An attempt to reduce the appendix was made, which was not possible due to fibrosis. The appendiculo-caecal intussusception was 2 cm below the ileum-caecal junction and was not causing any intestinal obstruction.² Hence partial resection of caecum with the intussuscepted appendix was done and the remaining part of the caecum was closed in two layers. The appendix and caecum could be separated in the resected specimen and both looked normal. The post-operative period was uneventful. Pathology of the specimen showed normal histology of appendix and caecum (Figure 3).

DISCUSSION

First reported in a seven-year-old boy in 1958, appendiculo-caecal intussusception is a rare condition. Collins reported a 40-year-study of 71,000 human appendiceal specimens, with an incidence of 0.01%.³

Intussusception of the appendix may occur at any age; however, majority of the reported cases reviewed in the earlier literature occurred in the pediatric age group, with an average of 16 years of age. The condition is four to five times common among the males than in the females.⁴ Our patient was a 45-year-old female.

This case is rare since only limited appendiceal invagination into caecum was found, while any form of appendiculo-cecal intussusceptions are rare. The intussuscepted appendix has not gone beyond the ileocaecal junction into the ascending colon. Very few cases of appendiculo-caecal intussusception alone have been reported in the literature.

Pre-operatively, appendicular intussusception may be discovered radiologically. Barium enema findings include a round or finger like filling defect within the caecum with no visible appendix and normal terminal ileum.^{5,6} Appendiceal intussusception has often been misdiagnosed as a caecal polyp in endoscopy when there is a neoplasm of appendix.⁴

Pathologically intussusception of the appendix has the following characteristics:

- (a) Lesions inside the lumen like faecoliths, foreign bodies.
- (b) Lesions of the wall like hypertrophic lymphoid follicles, adenovirus infections, mucosal polyps, mucocoeles, adenocarcinoma, carcinoid, endometriosis, tuberculosis, and mucinous cystadenoma.⁷

Pathology report in our patient showed normal appendix and normal caecum. Disvagination of the appendix has been described using a barium enema in cases of simple inversion.⁸ The definitive treatment for appendicular intussusception is surgical ranging from simple appendectomy to resection of appendix, caecum, terminal ileum, and part of ascending colon followed by end-to-end anastomosis.⁹

Recently, minimally invasive techniques have been applied specifically to the diagnosis and treatment of adult intussusception. The choice of using a laparoscopic or open approach depends on the clinical condition of the patient, the location and extent of intussusception, the possibility of underlying disease, and the availability of surgeons with sufficient laparoscopic expertise.⁹ In the present case, we did not use laparoscopy for diagnosis or treatment.

In conclusion, the rarity of appendiculo-caecal intussusception alone makes this case very interesting. It is often neither suspected nor diagnosed preoperatively.

REFERENCES

1. Flint R, Wright T. Intussusception of a normal appendix: how to avoid a right hemicolectomy. *New Zealand Med J* 2003;116:403–404.
2. Sakaguchi N, Ito M, Sano K, Baba T, Koyama M, Hotchi M. Intussusception of the appendix: a report of three cases with different clinical and pathologic features. *Pathol Int* 1995;45:757–761.
3. Collins DC. 71000 Human appendix specimens: a final report, summarizing forty years' study. *Am J Proctol* 1963;14:365–381.
4. Ryu BY, Kim TH, Jeon JY, Kim KH, Choi YH, Baik GH. Colonoscopic diagnosis of appendiceal intussusception: a case report. *J Korean Med Sci* 2005;20:680–682.
5. Nycum LR, Moss H, Adams JQ, Macri CI. Asymptomatic intussusception of the appendix due to endometriosis. *South Med J* 1999;92:524–525.
6. Lauwers GY, Prendergast NC, Wahl SJ, Bacchi S. Invagination of the vermiform appendix. *Dig Dis Sci* 1993;38:565–568.
7. Heithold DL, Tucker JG, Lucas GW. Appendiceal intussusception as a manifestation of mucinous cystadenoma: an interesting clinical entity. *Am Surg* 1997;63:390–391.
8. Schmidt FR, McCarthy JD. Intussusception of the appendix with endometriosis presenting as a caecal tumor. *Arch Surg* 1971;103:515–517.
9. Yakan S, Caliskan C, Makay O, Denecli AG, Korkut MA. Intussusception in adults: clinical characteristics, diagnosis and operative strategies. *World J Gastroenterol* 2009;15:1985–1989.