

Case Report

Intussusceptions of Vermiform Appendix

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Abstract:

Intussusceptions of Appendix is extremely rare condition. The diagnosis is only made during operation in most of the cases. It usually missed clinically because of unspecific presentation, such as vague abdominal pain, acute or chronic, occasional vomiting with or without rectal bleeding. Children are more commonly affected. But if adults are affected, the condition might be misdiagnosed as early caecal tumor. Many adults underwent unnecessary radical surgery.

Key words: Vermiform Appendix, Intussusceptions, caecal tumor.

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ملخص البحث

انغماد الزائدة الدودية هي من الحالات النادرة جداً والتي يتم تشخيص معظمها فقط اثناء عملية استئصال الزائدة. حيث من الصعب جدا تشخيصها سريرياً بسبب خصائصها وأعراضها المتفاوتة كآلم البطن الخفيف و الغثيان. وهي أكثر حدوثاً في الاطفال منه في الكبار. وعند حدوثها في الكبار غالباً ما يتم الخلط بينها وبين اورام المصراان الاعور مما قد يتسبب في جراحة جذرية غير ضرورية عند الكبار.

Introduction:

Abdominal pain is a very common, yet, nonspecific symptoms and Appendicitis remains the most common surgical disease manifesting with abdominal pain and requiring emergent surgical intervention (1).

Intussusceptions of the appendix is characterized by its low incidence. In a retrospective study of 4054 cases of appendectomies done at Ibin Sina Teaching Hospital, Mukalla for the period extending from 1st January 1996 to 31st December 2005 only the present case was recorded. The earliest case recorded was in 1858 by McKidd¹. D.C. Collins² in 1946 examined 71000 human appendix specimens obtained from surgical and autopsy material in a period of 40 years found seven cases of Intussusceptions. A prevalence of 0.01% (2).

Because of its extreme rarity and unspecific presentation, the diagnosis is commonly done during surgery. The condition assumes a great importance in

differential diagnosis of lower abdominal pain acute, subacute or recurrent with or without bleeding per rectum. Presence of a mass in the right iliac fossa in adult might simulate appendicular abscess, tuberculosis or neoplasm of caecum. If the surgeon is not aware of the condition may subject the patient to unnecessary radical excision e.g. right hemicolectomy.

Recently, it has been shown that colonoscopy can be a valuable tool for diagnosis of the appendiceal intussusceptions (3,4,5). This is true when the intussusceptions is secondary to polyps, endometriosis, benign tumors, carcinoid or early adenocarcinoma. Ultrasonogram can give a clue to the diagnosis revealing a concentric hypo-hyperechogenic rings in the right iliac fossa (6). Barium enema can help in some cases in reaching a preoperative diagnosis (7) and hydrostatic reduction.

Case report:

A 4-year-old boy presented with recurrent bouts of abdominal pain associated with vomiting and blood in the stool for 13 days duration, the pain was in the periumbilical region. Clinical examination was unremarkable, No abdominal mass detected. Some mild tenderness in the right iliac fossa. P.R- negative. WBC; 6300/mm³, stool examination showed cyst of *E. histolytica*. Initially treated for amoebiasis with no improvement.

Abdominal ultrasonography revealed nonhomogeneous mass lesion at the right upper abdomen with concentric hypo-hyperechoic rings, suggestive of ileo-colic intussusceptions. Plain x-ray of abdomen showed bubble of gas in the right ileac fossa.

Exploratory laparotomy through lower abdominal incision showed a freely mobile conical caecum and invagination of the appendix within the caecum (fig 1) and (fig 2) with a halo of oedema around the invagination. The invagination was reduced by milking the appendix. This is followed by appendectomy and fixation of the caecum to the right iliac fossa Fig. 3.



Fig. 1: Edematous caecum with invagination of appendix.

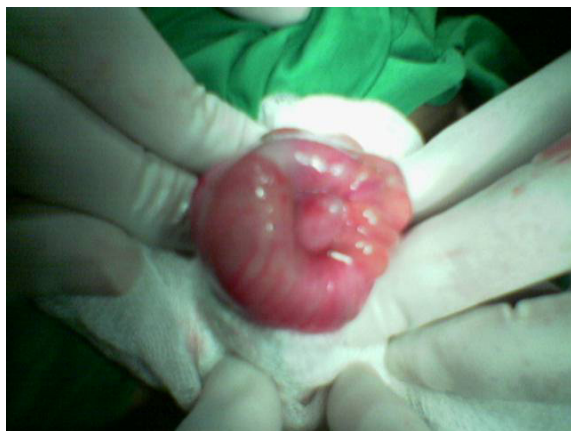


Fig. 2: Milking of caecum to release invaginated appendix.



Fig. 3: Appendectomy of inflamed intussuscepted appendix.

Discussion:

Inverted appendix is a rare occurrence that is poorly understood amongst clinicians and diagnostic radiologists. As a result, it is often overlooked or mistaken for other pathologic processes in patients presenting with nonspecific abdominal pain without any other obvious pathology. To make matters more difficult, not all cases of appendix intussusception are symptomatic. However, when symptomatic, the presentation is most frequently nonspecific and chronic in nature (8).

Ultrasound is the method of choice for children with suggestive signs and symptoms, the classic imaging of intussusception. CT is the most commonly used diagnostic modality (9). Colonoscopy is another method that can show signs suggestive of this condition, since it allows the direct view of a vegetating image inside the cecum, which must be differentiated from a neoplastic process (10).

Currently there are no guidelines to suggest if further evaluation for this entity is warranted. The approach can range from simple appendectomy to right colectomy if there are signs of obstruction(11). Intussusception tends not to respond permanently to non-surgical treatment, and simple appendectomy may not be adequate treatment. Other alternative surgical procedures include appendiceal inversion, which can mimic an inverted normal appendix and be misdiagnosed if pertinent surgical history is not elicited (12).

Primary intussusceptions is more common in chil

dren. McKid's case was seven year old boy. McGraw (13) 1890 reported a case 13 months child. Average age is 16 years. Males are four to five times more common than females (4). The intussusceptions are classified into primary where the cause is not clear or secondary where the invagination occurs as a result of local lesion. This reason is either anatomical or pathological factors. The anatomical factors either fully mobile appendix, narrow thin mesoappendix or poorly fixed caecum. The pathological conditions might be several, endometriosis, neoplasm, inflammation, foreign bodies, etc. While the primary type is common in children, the secondary prevails in adulthood.

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