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Case report

Intussusception of the appendix

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Intussusception of the appendix is an uncommon clinical finding, and there are less than 190 cases reported in the world literature. It was first described by McKidd in 1858 as a post mortem finding in a young child.[1] The incidence is quoted as 1:10,000 specimens obtained at operation and at post mortem by Collins.[2] It is more common in males, and in children.[3] I report the case of a woman who underwent laparotomy and was found to have extensive endometriosis and an intussuscepted appendix.

CASE REPORT

A 34-year-old woman, previously well, was admitted to the surgical unit with a 48 hrs history of crampy lower abdominal pain. The pain did not radiate and there had been no vomiting or alteration in bowel habit. There were no urinary tract symptoms, no previous episodes of severe abdominal pain and no previous surgery. Dysmenorrhoea had been a previous complaint and she was menstruating at presentation. She was apyrexic, but not distressed. Her abdomen was soft, there was tenderness with guarding and rebound in the right iliac fossa. Rectal examination was normal. The white cell count was 28,000 per μl and haemoglobin 15·6 g/dl. At laparotomy 200 ml dark blood was removed from the pelvis. The appendix was not immediately visible, but was palpable within the caecum. The ovaries were impalpable. Gynaecological assistance confirmed a ruptured endometrial cyst secondary to extensive pelvic endometriosis which made recognition of normal pelvic anatomy very difficult. Reduction of the intussuscepted appendix was achieved and routine appendicectomy performed. An endometrial deposit was seen on the serosal surface of the reduced appendix. Postoperative recovery was unremarkable and the patient was well at last review.

DISCUSSION

Intussusception of the appendix has been the subject of a number of reviews. McSwain[3] in 1941 and Frazer[4] in 1943 reviewed 77 and 82 cases respectively. Since then there have been sporadic case reports with a variety of associated pathological findings.[5] Less than 12 cases of appendiceal intussusception associated with endometriosis have been described.[4, 9] Although endometriosis externa is not uncommon — and may theoretically affect virtually any part of the peritoneal cavity, caecal involvement is uncommon compared with other parts of the colon.

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The aetiology remains unknown, but the most commonly accepted view suggested by Rolleston[8] proposes that either an intramural or an intraluminal lesion produces irritation of the normal appendiceal peristaltic activity, which leads to an attempt by the appendix to extrude the offending lesion. The appendix itself undergoes strong peristaltic contractions which may become more vigorous if the appendiceal wall is irritated. This may lead to part of its wall being pushed in, or out, acting as the leading point for an intussusception. Spasm of the muscular sphincter at the base of the appendix might also form the apex of an intussusception. It seems likely that anatomical, physiological and minor pathological changes interact to produce this rare condition.

McSwain's classification recognises four basic types of appendiceal intussusception; in type I the tip of the appendix invaginates into the proximal lumen; in type II invagination of the distal appendix occurs into the lumen of the proximal appendix; in type III the proximal appendix invaginates into the distal appendix; and in type IV — which may arise from progression of types II and I, but not III, there is complete intussusception of the appendix within the caecum. Ileocaecal or caecocolic intussusception may also be referred to as secondary or compound intussusception. McSwain called these combined intussusceptions (type I combined appendiceal intussusception).

Appendiceal intussusception may present in a variety of ways; as acute appendicitis, colicky abdominal pain associated with the passage of red currant jelly stools — typical childhood intussusception, or as an incidental barium enema finding — which may be subsequently reduced hydrostatically.[8] Some radiologists maintain that a "specific coiled spring" appearance in the caecum is indicative of appendiceal intussusception. It may also be mis-diagnosed as a caecal polyp at colonoscopy,[9] or discovered at laparotomy. Not surprisingly preoperative diagnosis with an acute presentation is very rare.

Treatment for this condition once identified is appendicectomy with or without burial of the stump. Simple reduction at operation may not be possible, necessitating caecotomy and removal from the inside. If the caecal mass cannot be distinguished from a tumour, right hemicolectomy may be necessary. Endoscopic appendicectomy is not recommended because of the risk of caecal perforation.[9] The present case illustrates a McSwain Type IV appendiceal intussusception occurring in a patient with extensive pelvic endometriosis. The exact mechanism of the intussusception remains unknown. There have been less than 12 reported cases in the world literature of appendiceal intussusception associated with endometrial deposits.

"When one opens the abdomen and cannot find the appendix, he should remember that such a thing as complete inversion of the appendix occurs and that it may be possible to feel the appendix in the caecum as a pencil-like mass". (Barton McSwain 1941)[3]

I would like to thank Mr B G Best, FRCS, for allowing me to report this case and Mr R J Brown, FRCS, for his help and guidance.

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BOOK REVIEW

The medical management of AIDS. Edited by Merle A Sande and PA Volberding. (pp 383. £18.75). Philadelphia: Saunders, 1988.

This book deals with all aspects of human immuno-deficiency virus infection and the Acquired Immune Deficiency Syndrome. It includes chapters describing the human immuno-deficiency in detail, clinical features of HIV infection of various systems and opportunistic infections which occur in patients rendered immuno-deficient. It also includes useful chapters concerned with special problems related to the AIDS epidemic, ethical issues regarding screening of patients and occupational health issues for those who provide care and a chapter related to medical responsibility and reluctance to care for HIV infected individuals.

Overall, this is an extremely comprehensive review of the topic. There are numerous tables and photographic plates which are extremely helpful, and at the end of each chapter there are many references for those who wish to research the topic more deeply. The book therefore provides a useful up-to-date review of clinical issues relevant to caring for individuals with HIV-related disease.

DR McCLUSKEY

ANN HP McKEOWN, BA, FLA.

Ann McKeown died suddenly while in England attending a meeting of University Medical School Librarians. She had been the first Sub-Editor of the *Ulster Medical Journal* and was very much responsible for the professional style and improved layout of the Journal from 1985 onwards.

She had trained at Trinity College Dublin, the British Museum Department of Printed Books and at the University of Hull under Philip Larkin. This background, and her naturally careful and meticulous approach to the use of words and their correct presentation on the printed page combined to set a necessarily high standard for the Journal. Her skills and dedication will be much missed.

DR HADDEN

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