

Chronic Intussusception in a Child

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Summary

Eke N, Eke FU. Chronic Intussusception in a Child. *Nigerian Journal of Paediatrics* 1999; 26: 44. A 15-month old boy presented after an apparent failure of treatment received for vomiting, abdominal pain and distension in other health care establishments, over a period of three weeks. He was wasted, severely dehydrated and anaemic. Although he was not constipated and the stool was not blood-stained, a diagnosis of intussusception was made from the physical examination findings of a mass on abdominal palpation and digital rectal examination. Plain abdominal radiographs were unhelpful in confirming the clinical diagnosis of intussusception. The child responded quickly to fluid and blood replacement. Laparotomy revealed an irreducible ileo-caeco-colic intussusception and an inflamed adherent retrocaecal appendix. A right hemicolectomy was done and he was discharged home well, after eight days in hospital. About one month after surgery, he had gained five kilograms in weight.

Introduction

CHILDHOOD intussusception usually presents acutely. However, when symptoms persist for over two weeks, such an intussusception is labeled chronic.¹ Blood in the stool, which is an important diagnostic feature in acute intussusception, is often absent in chronic intussusception (CI).² The diagnostic yield of plain abdominal radiographs in all types of intussusception has been unimpressive.³ Ultrasound scan is helpful in diagnosis but is often unaffordable or unavailable in many parts of the world. Since CI is rare, a high index of suspicion is usually essential for its early diagnosis.^{1,2} In this communication, we report the case of a 15-month old boy who had abdominal symptoms for three weeks and at laparotomy, was confirmed to have chronic intussusception.

Case Report

A 15-month old boy was brought to our Clinic severely dehydrated. A few weeks previously, he had developed a sudden onset of intermittent abdominal distension, vomiting of all feeds and gripping

abdominal pain. He had learnt to seek relief from pain by curling up while lying prone. He was admitted to an hospital, but was later withdrawn from the hospital by the parents for an apparent lack of improvement in his health, and taken to a 'Pharmacy' reputed to 'specialize' in treating children. However, when they were not satisfied with the child's progress there, a traditional practitioner was consulted and despite the abdominal wall scarification marks made by the latter, the child's symptoms persisted. Meanwhile, his bowel habits had remained unchanged and there was no rectal bleeding.

On admission at our Clinic, he was alert, severely dehydrated, emaciated and pale, weighing only 8 kg; his temperature was 39.5°C. An abdominal mass was palpable when he cried with pain. Digital rectal examination revealed a palpable intraluminal mass that could be pushed upwards. The stool in the rectum was not blood-stained. A clinical diagnosis of intussusception with a differential of a neoplastic lesion was made. The haemoglobin was 6.1 gm/dl in spite of severe dehydration. The serum electrolytes and blood urea and creatinine levels were however, within normal limits. A plain abdominal radiograph did not show features of intestinal obstruction. An ultrasound scan was not done because the parents could not afford it and in any case, it was not available

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at the Clinic at that time. The child received intravenous fluids and blood transfusion. Nasogastric intubation yielded scanty amounts of fluid. He initially passed watery mucoid stool intermittently, but prior to surgery, he passed formed stool; meanwhile, the abdominal mass remained palpable.

After resuscitation, he underwent laparotomy at which an ileo-caeco-colic intussusception down to the distal transverse colon was found. Reduction of the intussusception which was incomplete, resulted in laceration of the ascending colon. A right hemicolectomy with ileo-colic anastomosis was therefore, performed. An inflamed retrocaecal appendix was found adherent to the caecum in the specimen that was removed. There was no obvious intraluminal pathological leading point in the mass. The histology report showed features of acute and chronic inflammation in the appendix as well as mucosal ulcers in the large and small bowel portions of the specimen. The child recovered fully, and was discharged home after spending eight days in the Clinic. At review a month later, he weighed 13kg.

Discussion

Intussusception is a relatively common cause of intestinal obstruction in children with a peak incidence between the ages of eight and 12 months.^{4,5} It usually presents acutely with the triad of red currant jelly stool, vomiting, and abdominal pain and is often associated with an abdominal mass. When symptoms exceed two weeks, the term "chronic intussusception" is applied.^{1,6} The patient presented in this communication had unrelenting symptoms for three weeks before the definitive surgical treatment. The absence of constipation in our patient is remarkable. However, diarrhoea and normal bowel habits have been reported in previous cases of chronic intussusception. The absence of constipation can be explained by the incomplete luminal obstruction that is characteristic of chronic intussusception.^{1,2,7,8} Similarly, the finding that the stool was not bloodstained, supports earlier observations of absence of rectal bleeding in CI.^{1,2,8} Although it has been suggested that an abnormal or primitive mesentery could explain the occurrence of intussusception without strangulation of the affected bowel,² we did

not observe an abnormal mesentery in our patient. A striking feature of CI as observed in our patient is emaciation with marked weight loss attributed to prolonged anorexia and vomiting.^{7,9} Judicious resuscitation with plasma expanders and blood transfusion may be necessary prior to attempts at reducing an intussusception.

Earlier reports on CI have shown an unexplained male preponderance with a male:female ratio of 3:1.¹ Previously reported children with CI were older than 2 years.^{1,2,7,9} Our patient aged 15 months, was younger than these earlier cases. There is a high incidence of organic leading points in CI.¹ It is possible that the inflamed retrocaecal appendix adherent to the caecum in our case could have acted as a leading point by pressing on the caecum.

The treatment of childhood intussusception with hydrostatic pressure was introduced by Hirschsprung in 1876 but was popularized 72 years later in 1948, by Ravitch.¹⁰ Pneumatic reduction using fluoroscopically guided air and controlled insufflation pressure is now the treatment of first choice for childhood intussusception in large paediatric centres.¹¹ Contraindications to this method of treatment include perforation, peritonitis, septic shock and the presence of a leading point.¹² Hydrostatic reduction often fails in CI in addition to a high incidence of leading point organic lesions.^{1,2} We did not employ hydrostatic reduction in this child because we lacked the necessary facilities. However, in retrospect, our findings at laparotomy that the intussusception was irreducible and the possibility that the inflamed retrocaecal appendix adherent to the caecum may have acted as a leading point perhaps justify surgical treatment in our patient.

Although intussusception can become chronic, there have been reported cases of sloughing off of the intussusceptum with autoanastomosis of the intestine.¹³ This outcome is unpredictable and unreliable. Chronic intussusception should be included in the differential diagnosis of weight loss and intermittent abdominal pain with prolonged diarrhoea in children. Surgical reduction with or without intestinal resection is the recommended treatment.^{1,2,8,9}

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