SONOGRAPHIC APPEARANCE OF INTUSSUSCEPTION

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INTRODUCTION

Intussusception may be diagnosed by ultrasound in which its characteristic feature is an onion-like formation,[1] or a soft tissue mass with concentric layers of echogenicity produces a donut or target sign on transverse images or a pseudokidney sign on longitudinal images.[2-5]

CASE REPORT

A 5 month-old boy was referred for ultrasonography (USG) of a mass in the left iliac fossa. He had vomiting for about 12 hours. On USG, it was found that both the renal and the hepatobiliary systems were normal in echotypes, but an oval mass is present in the left iliac fossa with concentric layers of echogenicity (Fig.1). Diagnosis of intussusception was made at USG, which was confirmed at emergency laparotomy. The child had an uneventful recovery.

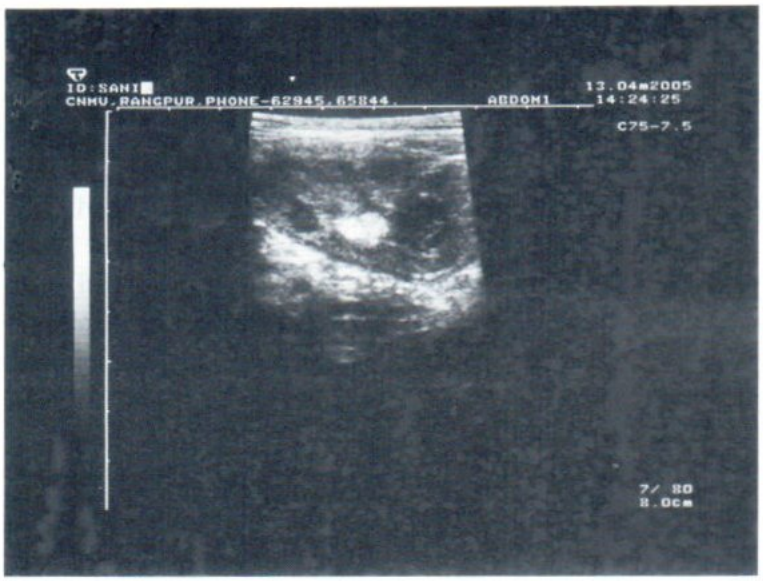

Fig.1 USG of Intussusception.

DISCUSSION

Intussusception is prolapse of proximal segment of bowel (intussusception) into an adjacent distal segment (intussusception). It causes 1% of all bowel obstruction. It is common in infants (95%) than in adults (5%). Adult intussusception has an underlying cause in about 90% cases, but in children it is mostly idiopathic. The etiology can be classified into the major headings of (a) neoplastic, (b) post-surgical

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(e.g. adhesion, bowel wall edema), (c) miscellaneous (e.g. Meckel's diverticculum, coeliac disease, AIDS related gastrointestinal disorder) and (d) idiopathic.[6] The central echoes are apparently compressed mucosa of the intussusception head, and the various layers and concentric rings may represent mesentery and bowel wall drawn into the intussusception.

Clinical presentation of adult intussusception is variable, most often chronic intermittent abdominal pain. Other symptoms include vomiting, nausea, melena, constipation, fever and weight loss. Symptoms may last several weeks to several months. Physical examination is often unremarkable. Plain X-ray abdomen may show non-specific findings, e.g. signs of bowel obstruction with an associated soft tissue mass. Most patients with idiopathic intussusception are between 3 months and 2 years of age. Signs and symptom include pain, vomiting, blood per rectum, and a palpable abdominal mass.

Hydrostatic or pneumatic reductions are successful in 75-85% of cases. During hydrostatic reduction, the rule of 3s is used: 3 attempts; 3 minutes of intermittent fluoroscopy for each attempt; bag placed 3-4 feet above the tabletop. Mean pressures during air insufflation should not exceed 120 mm Hg at rest.

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