



Adult Intussusception : A Case Report

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Abstract

Intussusception in adults is rare. This is a case of ileo-colic intussusception in a 65 year old lady with characteristic radiological signs on plain x-ray, Ultrasonogram, barium enema and contrast enhanced CT. The lead point could be identified and was suspected to be a MALTOMA.

Introduction

Intussusception in adults is distinctly rare and makes the diagnosis challenging. A high degree of clinical suspicion, especially in the emergency setting, is required. The identification of a "lead point" which may be a primary or a secondary malignancy has a bearing on the subsequent management. This is an illustrative case of adult intussusception that showed classical features on several imaging modalities (viz., Plain x-ray abdomen, ultra sonogram, barium enema, and contrast C T examination).

Case Report

A 65 year old female was admitted with a history of intermittent upper abdominal pain for 6-8 months with occasional vomiting, and passage of black coloured stools that had exacerbated in the week prior to admission. She was being treated with omeprazole and antacids for herniation at the gastro-oesophageal junction and antral gastritis following an upper gastrointestinal endoscopy.

On examination, she was pale and there was tenderness in the epigastrium. With a clinical suspicion of intermittent intestinal obstruction she was further investigated. Plain x-ray of the abdomen showed the presence of a crescent shaped soft tissue mass (Meniscus sign) in the line of the colon (Fig 1). Ultrasonogram of the abdomen showed a mass with concentric rings -Target sign with central hyperdense lesion (lead point) on transverse section. The longitudinal section of the same area revealed hypoechoic areas separated by linear hyperechoic strands (Hay-fork sign) (Fig 2 &3) 4. Subsequent Doppler interrogation showed normal flow in the

mesenteric vessels(Fig 4). Barium contrast examination of the colon revealed coiled spring appearance near right hepatic flexure (Fig 5). Following this a Contrast C T examination showed a bowel-in-bowel appearance with intact blood flow in the mesenteric vessels and presence of lead point (Fig 6a & b).

Discussion

Based on these observations, a diagnosis of ileo-caecal intussusception with a lead point was made and the patient was advised surgery. The entire lesion was resected followed by end to end ileo-colic anastomosis.

Gross examination of the resected specimen confirmed the presence of the lead point (Fig 7) which was provisionally suspected to be a MALTOMA histologically. Intussusception in adults is reported to be rare and accounts for 5% of all intussusceptions and has been reported to be as infrequent as 0.003 – 0.02% of all adult hospital admissions^{1,2}. In this case the patient presented with reflux symptoms almost identical to an earlier report³ Imaging is an important modality for the diagnosis of adult intussusceptions. In general radiological diagnosis of intussusceptions has a high sensitivity and specificity. Plain X-ray of the abdomen with the characteristic meniscus sign has an accuracy of 40%-90%⁴⁻⁷. In barium enema the coiled-spring sign is diagnostic⁷. Currently ultrasonography has been found to be extremely useful with a sensitivity of 98%-100%². Ultrasonography has the added advantage of being non-invasive and economical. However this is dependent on the skills of the operator. The "multi-concentric sign"⁸, "hay fork sign"⁴ and the "target sign"⁹ are suggestive bowel within bowel which is characteristic of intussusceptions. The "target sign" (bowel –in bowel appearance) which is detectable on ultrasonography is also identifiable on CT¹⁰. A Multi detector computed tomogram [MDCT] with contrast enhancement is a useful tool for diagnosis particularly in the identification of a lead point¹¹.

A lead point is fairly frequent in adults and its detection is extremely important since a malignant lesion is reported 28%-80% of cases^{1, 11}. This case has been presented in view of the characteristic radiological

signs observed on different available radiological modalities. This is of educative value and reinforces the utility of imaging in diagnosis of intussusception.

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Illustrations

Illustration 1

Plain X-ray abdomen showing meniscus sign (arrow)



Illustration 2

USG (longitudinal view) showing hay-fork sign



Illustration 3

USG (cross-sectional view) showing multiconcentric ring sign



Illustration 4

Doppler USG showing presence of blood flow in the mesenteric vessels

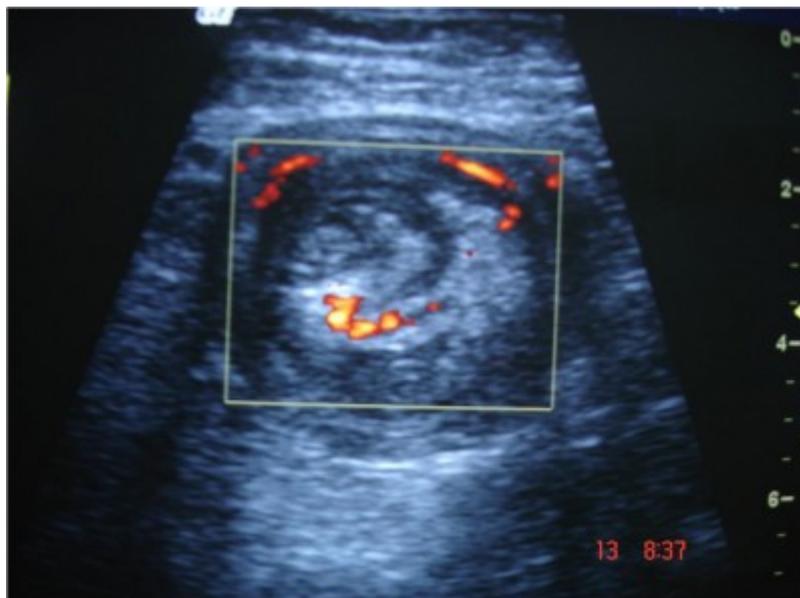


Illustration 5

Barium enema showing coil-spring appearance



Illustration 6

CECT showing bowel-within-bowel appearance [Figure 6a]



Illustration 7

CECT showing lead point [Figure 6b]

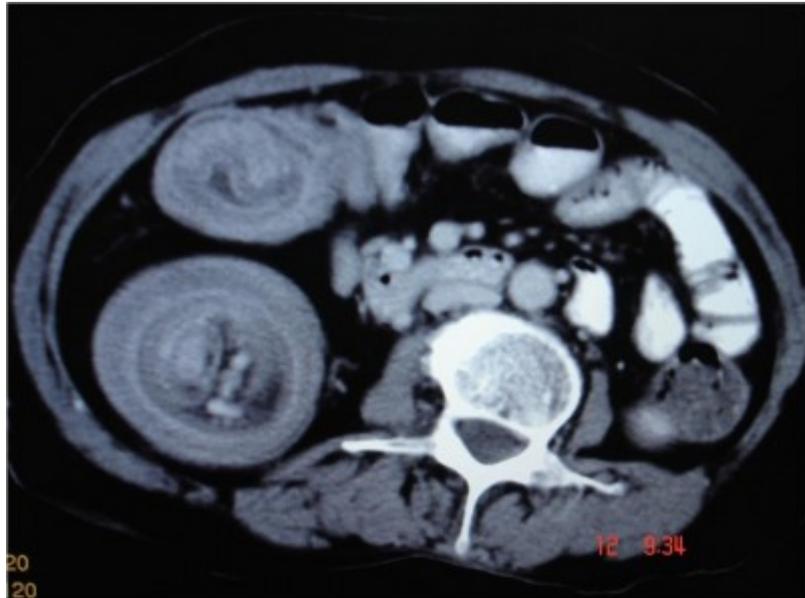


Illustration 8

Lead point seen in the resected specimen



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