

Ileo Ileal Intussusception secondary to Submucosal Ileal Lipoma – A Case Report

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Abstract

Intussusception in adults accounts for less than 5 % of all intussusceptions. It occurs when a segment of intestine invaginates into itself. Here we report a 60 year old female patient with pain abdomen over 4 years duration, located in the lower abdomen which was insidious in onset and colicky in nature lasting for 15 to 30 minutes, which aggravated on taking food and relieved after passing stools and anti-spasmodic medication. It was associated with nausea, abdominal distension and occasional vomiting. On admission the patient was haemodynamically stable and on examination an ill-defined non tender mass could be felt in the right iliac fossa without any organomegaly. Ultrasonography of abdomen showed the walls of the distal ileal loop and caecum were thickened with hypoechoic texture. CT scan showed ileo ileal small bowel intussusception with a soft tissue mass lesion with negative attenuation numbers consistent with a lipoma. Based on above observations, laparotomy was undertaken with a midline incision.

Intra-operative findings were ileo ileal intussusception which on reduction showed a tumor measuring 5x3 cm at the tip of the intussusceptum about 8cm from the ileo caecal region with insignificant mesenteric lymphadenitis). Resection of the small ileal segment with the tumor was performed, followed by primary ileo ileal anastomosis. Resected specimen sent for histopathological examination confirmed the submucosal pedunculated lipoma.

Key words: Intussusception, ileo ileal, submucosal lipoma

Introduction

Abdominal pain is a common problem. A diagnostic pitfall is intussusception. Intussusception in adults accounts for less than 5 % of all intussusceptions. It occurs when a segment of intestine invaginates into itself. Most adult intussusceptions have an organic cause. In almost 50% of cases, the diagnosis of intussusception in adults is only made during surgery^[1,2].

A lipoma can be found anywhere in the alimentary tract, most often in the colon (70%) and 20 to 25% are found in the small bowel. Usually they are asymptomatic but when size is more than 4cm they present with haemorrhage, melaena, abdominal cramps, diarrhoea or constipation and intussusception^[3,4].

Case Report

A 60 year old female patient was admitted under surgery department with pain abdomen over 4 years duration, located in the lower abdomen which was insidious in onset and colicky in nature lasting for 15 to 30 minutes, which aggravated on taking food and relieved after passing stools and anti-spasmodic medication. It was associated with nausea, abdominal distension and occasional vomiting. On admission the patient was haemodynamically stable with a blood pressure of 140/90 and pulse rate of 70 beats per minute and afebrile. On examination of abdomen, appears to be distended with laxity of abdominal wall and an ill-defined non tender mass could be felt in the right iliac fossa without any organomegaly. Pelvic and per rectal

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examination revealed no abnormalities. Other systemic examinations were normal.

Laboratory tests revealed Haemoglobin (Hb)- 11.9 gm%, Total Leucocyte Count (TLC) – 7000 cells/cumm, platelet – 1,86,000 cells/cumm, creatinine – 0.9 mg%, Random Blood Sugar (RBS) – 76 mg%, Erythrocyte Sedimentation Rate (ESR) – 20 mm at end of 1st hour.

Chest x-ray was normal. Ultrasonography (USG) of abdomen showed the walls of the distal ileal loop and caecum were thickened with hypoechoic texture. No significant increase in vascularity and lymphadenopathy noted. CT scan showed ileo ileal small bowel intussusception (Figure 1) with a soft tissue mass lesion with negative attenuation numbers consistent with a lipoma.

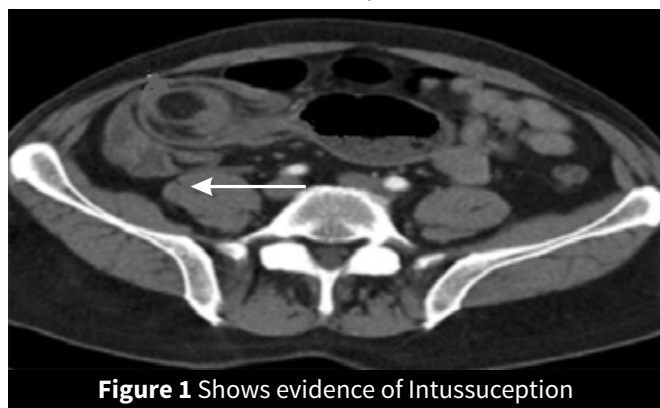


Figure 1 Shows evidence of Intussusception

Based on above observations, laparotomy was undertaken with a midline incision. Intra-operative findings were ileo ileal intussusception which on reduction (Figure 2) showed a tumor measuring 5x3 cm at the tip of the intusuceptum about 8cm from the ileo caecal region with insignificant mesenteric lymphadenitis (Figure 3). Examination of the small bowel, large bowel, liver and spleen revealed no abnormalities.

So resection of the small ileal segment with the tumor was performed, followed by primary ileo ileal anastomosis (Figure 4). Specimen (Figure 5) was sent for histo pathological examination which confirmed the submucosal pedunculated lipoma (Figure 6). The post-operative period was uneventful. The patient was reviewed following discharge and he was asymptomatic and relieved of all previous symptoms.



Figure 2 ileo ileal intussusception which is being reduced



Figure 3. Tumour mass in ileum following reduction of the intussusception



Figure 4. Post ileo ileal anastomosis

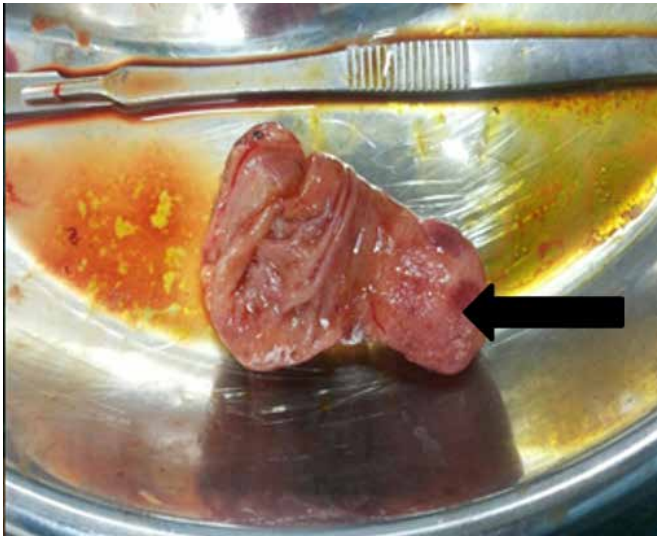


Figure 5. Resected segment of ileum with the tumour mass

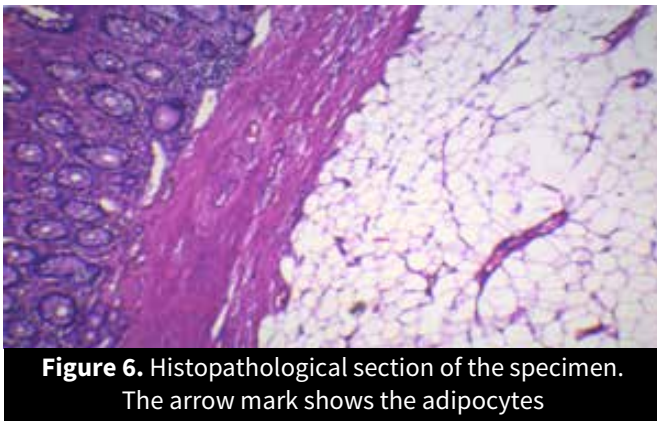


Figure 6. Histopathological section of the specimen. The arrow mark shows the adipocytes

Histo pathological report (HPR) -- polyp shows surface lined by intestinal mucosa. The submucosa shows a well defined mass consisting of mature adipose tissue suggestive of submucosal lipomatous polyp.

Discussion

Intussusception is classified according to its gastrointestinal location:- ileocaecal, ileoileal, colonic and retro grade and based on presentation:- acute or chronic^[1,2,5]. However, it is difficult to distinguish the different subtypes clinically. Clinically, intussusception presents either as acute pathology with signs and symptoms of abdominal obstruction, depending on the site of intussusception, or as a chronic pattern with recurrent abdominal pain and signs of subacute obstruction^[1,2,6]. This pain is characterised as recurrent and colicky. It can be explained by transient intussusception and self-reduction of the affected bowel^[1,2,7].

In acute ileocaecal intussusceptions the ileum telescopes into the colon through the ileocaecal valve^[1]. Intussusception leads to the development of venous and lymphatic congestion, resulting in intestinal oedema. If not treated immediately the arterial blood supply to the bowel will be jeopardized. This can lead to ischaemia, perforation and peritonitis, resulting in a potentially lethal condition^[1,2,8,9].

The most common presenting sign and symptom of an adult patient with intussusception is colicky abdominal pain (71% to 90% of patients)^[1,2]. Other symptoms include nausea, vomiting, bleeding, diarrhoea or constipation. Palpation of an abdominal mass during clinical examination is only reported in less than 50% of patients^[3,10]. Usually, the duration of symptoms is longer in benign and enteric lesions compared to malignant and colonic lesions^[1,11]. Only 5% of all intussusceptions occur in adults^[2,3,10,12]. In 90% of cases a predisposing lesion can be found. This is contrary to intussusception in the paediatric population: an organic lesion is found in 10% of the cases^[2,12]. In adults, it is important to differentiate between small bowel and colonic intussusception; in 63% of cases of small bowel intussusceptions a benign underlying lesion can be found, whereas in 58% of cases of large bowel intussusceptions a malignant aetiology has to be thought of like colonic adenocarcinoma which is the most important cause of malignant large bowel intussusception.^[2] Other include lymphoma, lymphosarcoma and leiomyosarcoma have also been reported. Benign lesions provoking large bowel intussusception include: lipoma, leiomyoma, adenomatous polyp or endometriosis and up to 13% of the colonic intussusception cases remain unexplained^[2]. Malignant causes of enteric intussusceptions are predominantly metastases; rarely a primary small bowel malignant tumour reported. Non-malignant lesions include benign tumours, Meckel's diverticulum, lymphoid hyperplasia and adhesions. About 20% of cases are idiopathic^[2,13].

A lipoma of the gastro-intestinal system, reported in post mortem cases is 0.2%. It is a benign tumour composed of mature lipocytes^[4]. It can be found anywhere in the alimentary tract, most often in the colon (70%) and 20 to 25% are found in the small bowel^[4]. Small bowel lipomas are usually

solitary but may occasionally be multiple^[14]. Duodenal lipomas are less common than ileal or jejunal lipomas. Most lipomas are submucosal (90-95%) and asymptomatic, until they become larger than 2 cm^[4]. When larger than 4 cm, 75% of the submucosal lipomas are symptomatic^[3,4]. The most frequent presenting symptoms of lipomas are haemorrhage, melaena, abdominal cramps, diarrhoea or constipation and intussusception^[15,16]. If a segment of the intestine with a lipoma invaginates (intussusceptum) the outer part (*intussusciptiens*). Subserosal lipomas of the small bowel (5-10%) harbour, along with the risk of invagination, the possibility of strangulation^[15]. Because of the slow growth of lipomas, most patients are 50 to 60 years old when they become symptomatic, as in this case, but no gender difference is reported^[15]. No malignant transformation of lipomas or recurrence after resection has been reported in the literature^[3].

Conclusion

This observation illustrates all aspects of chronic small bowel intussusception secondary to a lipoma in an adult patient. Diagnosis of intussusception can be delayed due to non-specific abdominal symptoms^[14]. Therefore, in patients presenting with recurrent abdominal symptoms, one should consider more unusual causes like chronic intussusception. We believe in such cases laparotomy evaluation and resection is the treatment of choice.

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