

**Case report:**

**Intussusception in Adult due to Lipomatous Polyp - An Uncommon Case Report**

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**Abstract:**

Intussusception, invagination of a segment of the gut into an adjacent one, is a relatively common cause of the intestinal obstruction in children but a very rare and uncommon clinical entity in the adults accounting to 1% and near about 65% of these are caused by malignant lead point. The Lipomatous polyp accounts for 4% of all benign tumors of the gut. In most of the cases, these are seen particularly in large intestine, usually sub mucosal and around ileocecal valve. These are mostly and very often asymptomatic. Mrs. Rahima Begum aged 65 years, previously was a healthy Bangladeshi housewife, with the history of recurrent abdominal colic of moderate intensity for the last 6 months, associated with the appearance of mass in the right lower quadrant with features of sub-acute intestinal obstruction got admitted into the Ibn Sina Medical College Hospital, Kallyanpur, Dhaka, Bangladesh. The required and most relevant investigations revealed the Ileocolic intussusception and underwent the right hemicolectomy. Postoperative recovery of the patient was uneventful excepting the hypertension only. Histopathology investigations revealed lipomatous polyp arising from the Ileocecal junction. This study reports intussusception in the adult due to lipomatous polyp, a very rare case presenting with sub acute intestinal obstruction.

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**Introduction:**

Intussusception in the adults accounts for about 5% of all the cases of intussusception and rare cause(s) (ranging 1% - 5%) of intestinal obstruction in them. Intussusceptions are generally found between the segments that move freely and retroperitoneal segments or fixed by the adhesions. The Ileocolic is the most common type.<sup>1,2</sup>

In adults, the clinical features is quite variable and very nonspecific, making diagnosis of this condition usually difficult and most often an intra operative finding, as opposed to the children who often have specific symptoms, abdominal pain, red current stools and a palpable mass, dominating the clinical picture. Intussusception in the children is commonly primary or idiopathic in most cases and that is near

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about 80% can effectively be treated by reducing or with an air enema.

In the adult cases due to the fact that most patients have some underlying disease process in intestinal wall and associated risk of the malignancy which is nearing to almost 65%; there by resection is very appropriate method beyond any doubt for these patients. Lipomatous polyp is further a rare cause of intussusception that might be 4% or lower among all the benign causes.<sup>3</sup>

### **Case report:**

Mrs. RB (a Bangladeshi being 65 years of age) was previously a healthy housewife, with the history of recurrent abdominal colic of moderate intensity for the last 6 months, associated with the appearance of mass in the right lower quadrant with features of sub-acute intestinal obstruction. She also reported the absence of evacuation and elimination of the flatus. The physical examination showed the prominent as well as vital signs within normal limits and distended abdomen with visible peristalsis tendered on palpation, no signs of peritonism. Laboratory tests pinpointed and indicated leukocytosis without any biochemical changes. Abdominal ultrasound showed soft tissue mass at the right colic flexure and thick walled ascending and transverse colon with slight narrowing of the lumen. CT scan diagnosis identified the possible sub acute intestinal obstruction due to intussusception of proximal transverse colon to hepatic flexure. Colonoscopy findings were caecal growth but biopsy was negative for detecting malignancy.

The Laparotomy investigations pointed intussusception of the ileum and cecum into the ascending colon. The Right Hemicolectomy was accordingly performed. The patient had hypertension postoperatively requiring high doses of antihypertensive drugs for the blood pressure remained under control. Evolved without any other complications, she was discharged on the 8<sup>th</sup> postoperative day.

Histopathology of the specimen reveals that the lipomatous polyp. Intestinal wall showed marked edema, micro-hemorrhages and leukocyte infiltration. In the region of the Cecum also showed benign lesion composed of the mature adipose tissue. The



Figure-1: The leading proximal, small bowel segment (intussusceptum) telescopes into the distal, colon segment (intussuscipens).

overlying mucosa is ulcerated lined by granulation tissue without atypia.

### **Discussion:**

Most of the current series show that about 90% of the patients have anatomical or pathological lead point underlying the intussusception<sup>4,6,7,9,12</sup>. Concerning the location, the small bowel is the most common site of the involvement<sup>8,9,12</sup>, and the lesions in distal segments are very common<sup>12</sup>. Regarding the etiology, the intussusception can be classified as benign, malignant or idiopathic. There seems to be a slight predominance of the malignant causes, particularly in the colonic intussusceptions<sup>3,6,10,12</sup>. Begos et al.<sup>4</sup> reviewed eight series with 1048 patients. Sixty-four percent of the cases were intussusceptions in the small gut, and 63% had a benign underlying cause, compared to 14% of malignant lesions. In the large gut, 36% of malignant cases have been identified<sup>8</sup>. This condition is rare in adults, remains a diagnostic challenge for most surgeons, especially due to presenting a wide range of the symptoms, chronic problems often predominate<sup>2,4,5,6,8,9</sup>. In all series, the abdominal pain was most common symptom, followed by the nonspecific complaints with nausea, vomiting, constipation and fever. The classic triad, present in the children, abdominal pain, bloody

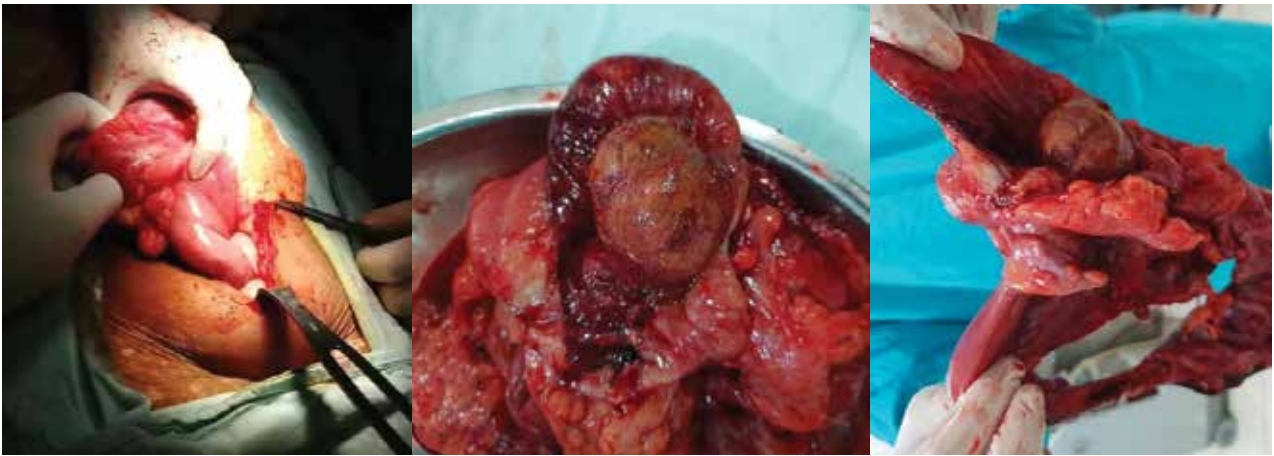


Figure-2 : The Gross examination of the patient specimen reveals a 5 cm polypoid structure arises from the posterior aspect of the ileocecal junction. The cut surface is lipomatous in appearance. And, the overlying mucosa is ulcerated. Adjacent to the lesion was also demonstrated intussusception of a segment of the same loop with the edema.

stools and a palpable mass is noticed in a minority of adult patients. In another study of 41 patients the triad was present in only four cases<sup>4</sup>. Even with the evolution of noninvasive diagnostic procedures, intussusceptions in adults is rarely diagnosed preoperatively (32%)<sup>4</sup>. X-ray examinations of the abdomen were repeatedly requested and, although rarely, showed signs suggestive of intussusceptions, can help to define an obstruction and in some cases of the location<sup>8</sup>.

Contrast examination of the upper gastrointestinal tract can be done and be useful in small intestine intussusceptions. The barium enema is useful in the patients with colo-colic or the ileo-colic suspected intussusceptions and the classic signs obtained by this examination are the “meniscus sign”<sup>1,3,12</sup>.

The CT scan images suggest that the intussusceptions with the target sign in cross section and pseudo kidney, in longitudinal. They may also be highlighted, as in this case, the various layers involved in the intestinal walls, producing a pattern “Onion Skin”. In most series, the ultrasound does not show the appropriate accuracy<sup>7,9</sup>.

The computed tomography is considered the most sensitive radiologic examination to confirm intussusception<sup>3,4,12</sup> and evaluates the possible extension of the tumor, if present<sup>12</sup>.

Colonoscopy examination is valuable to evaluate the cases of recurrent and chronic intussusceptions,

especially when symptoms suggest obstruction of the colon<sup>8</sup>. In cases of Lipoma, colonoscopy findings include the typical “cushion sign” (depression of the mass by forcing colonoscopy against it) and leakage of fat during the biopsy.

In the most adult patients, the diagnosis is made during surgical exploration. In these cases resection is recommended<sup>1</sup>. To review in other ways, the extent of resection and manipulation of the invaginated bowel during the reduction remains controversial<sup>8</sup>. Some authors suggest that resection should be performed without prior reduction for the following reasons: 1) Possibility intraluminal spread of tumor or the venous during reduction; 2) Risk of perforation and spread of the microorganisms and tumor cells into the peritoneal cavity; 3) Increased risk of the complications after anastomosis made about manipulated intestinal tissue, friable and edematous<sup>8,11</sup>. Therefore, the ileo-colic intussusception, ileocecal and colorectal colic, especially in the patients over 60 years of age is of very high risk of malignancy as etiological factor; should be resected without prior reduction. The resection should respect the oncologic principles and is recommended primary anastomosis between healthy and viable tissues<sup>8,11,12</sup>. In the cases where the diagnosis is made preoperatively and benign lesions are well established, can be tried reduction and a more limited resection.

### **Conclusion :**

Since the patient had high incidence of the malignant

features as a cause of the intussusception in adults, Preoperative diagnostic workup should be adequate. Operations should be performed live as malignant cases, because a rare case like the Lipoma is usually diagnosed postoperatively.

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**Authors' contribution:**

Data gathering and idea owner of this study: Faruk MO, Bhuiyan MJH, Parvin MM, Jalil MA

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