**Case Report**

**Colocolic Intussusception Because of Lipoma in a 44-year-Old Adult**

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**Abstract**

Lipoma is an uncommon mesenchymal tumor of the colon. They are typically symptom free, the large lipomas within the colon are rare, and can cause obstruction, bleeding, or intussusception. Intussusception is comparatively common in pediatrics and in adults, it could be a rare entity. Pathologic lesions are usually found with a major percentage of malignancy. This is a retrospective evaluation of an adult with an intestinal intussusception who underwent oncosurgical treatment. He was diagnosed with surgically proven intussusception. Using ultrasound and colonoscopy as diagnostic studies, colocolic intussusception was discovered. The patient underwent oncosurgical exploration. Intestinal resection with abrupt anastomosis was the procedure of choice for the patient. The etiology was benign lipoma. Adult intussusception should be evaluated in any patient with subacute abdominal discomfort with bearing in mind the high rate of malignancy and a lower rate of benign tumors. intestinal resection without reducing is highly recommended for colonic intussusceptions.

**Keywords:** Colon, colorectal neoplasms, intussusception, lipoma

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**INTRODUCTION**

Lipomas within the colon are rare and most of them are in the sigmoid and ascending colon and are asymmetric. But if the lesion is more than 2-cm diameter, then it will be symptomatic and present with abdominal pain, bleeding, and obstruction, and in extremely rare cases, lesions may cause massive hemorrhage, complete luminal obstruction, intussusceptions, and perforation that cause acute abdomen. Also giant lipoma is the term used for lesions more than 5-cm diameter. Nearly 90% of colonic lipomas arise from submucosa and, therefore, the leftovers are from subserosa. Lipomas have benign clinical courses and a low-recurrence rate after excision and Bauer was the first to describe this entity in 1957. After hyperplastic and adenomatous polyps, lipomas are the third most prevalent benign tumors in large bowel. Intussusception of the bowel represents 1% of the causes of obstruction in adults and is explained as telescoping the proximal circlet of the bowel surrounded by the distal loop leading to the destruction of the lumen. It is the most common reason behind bowel obstruction in infants, especially in the ages between 4 and 10 months and among males. Adult intussusception is related to primary pathology in 90% of the patients with an equal prevalence in male and female patients occurs within the small bowel in 52% of the cases and large bowel in 38% with 10% encompassing the gastric part and causes surgical apertures. It can rarely occur within the colon as there’s no obvious peristalsis there, most of colon mass are caused by colorectal adenocarcinoma. There are also rarer causes reported in literatures like lipoma and angiolipoma.

Clinical symptoms among adults are variable and broad-based as Patients may complain of generalized abdominal pain, nausea, vomiting, bloody stools, change in bowel habits, and abdominal distention and symptoms can be acute, subacute, or chronic. Physical examination can reveal abdominal distention or tender abdomen, although it usually does not reveal any...
abnormality. This condition can mimic other more common dysfunctions, such as inflammatory bowel diseases, bowel obstruction because of peritoneal adhesions, and infectious gastroenteritis; therefore, it makes the clinical diagnosis of adult intussusception more difficult. Diagnosing requires a high index of certainty that usually demands the use of imaging studies such as computed tomography (CT) scan.\[7\]

Intussusception without treatment can be life threatening, starting with developing bowel distension, which increases the intraluminal pressure, indicating microvascular ischemia, tissue necrosis with subsequent intestinal perforation, and peritonitis.\[9\] Hence, diagnosis and treatment at early stage of intussusceptions are critical to stay away from complications.

In this report, we present a case of an adult intussusception because of underlying malignant colonic neoplasm that was effectively diagnosed as lipoma and treated. We also discuss some diagnostic procedures and therapeutic interventions employed in the management of adult intussusception.

In this report, we describe an adult patient with intussusception because of underlying benign lipoma that was excellently diagnosed and treated. This report described a rare case and reviewed the relevant literature to standardize the necessary procedures required for the diagnosis and treatment of this kind of lesion.

**Case Report**

A 44-year-old female patient, with no significant personal or family history, was admitted for a clinical picture of roughly 1 year of abdominal colic-type pain located within the right lower quadrant that radiates towards left flank and vomiting, dyschezia, and constipation. In addition, he had non-quantified weight loss. In an outpatient evaluation for the identical symptomatology, a complete abdominal ultrasound was performed during which thickening of transverse colon close to left side was identified. In the physical examination, the abdomen is not distended, peristalsis is positive, bowel sounds are normally soft, depressible, mildly painful tenderness on general palpation without signs of peritoneal irritation, no palpable masses, or organomegaly were identified; management with intravenous fluids was initiated, blood biochemistry and colonoscopy were requested as paraclinical studies. Laboratory blood tests showed leukocytosis with $15 \times 10^9/L$ WBCs (normal range is between 4 and $11 \times 10^9/L$), hemoglobin $11g/dL$ (normal range is between 11.9 and 15.1 g/dL), and platelet count $550 \times 10^9/L$ (normal range is between 150 and $450 \times 10^9/L$). Renal and liver function tests were within normal values also testing for HIV antibody reported negative. Colonoscopy revealed a colocolic invagination, located within the colon [Figure 1]. In the histopathological study of the samples extracted in the colonoscopy and during the surgery, a submucosal polypoid lipoma with reactive lymph nodes was identified. It was concluded that it was a colonic lipoma. CT scan was not requested because the patient underwent colonoscopy. Then, emergency surgery was performed. Following perp and drape under general anesthesia, the patient underwent a laparotomy, the abdomen was incised in lower midline fashion, and when we entered the greater peritoneal sac, there was mild intraperitoneal free fluid that was transparent. Then, colon was explored from the rectum to the proximal and that we found multiple simple cysts adjacent to the left ovary therefore cystectomy was done. Then, an invagination because of a lipoma was found in the transverse colon somehow nearer to splenic flexure than hepatic flexure. Then, the left toldt line was made free from the abdominal wall also splenic flexure was made free and taken down. Gastro colic ligament was made free from transverse colon, mid colic vessels were skeletonized, and partial colectomy was done [Figure 2], then Colo colic anastomosis was done. The abdominal incision was sutured [Figure 3]. Patient

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**Figure 1:** Colonoscopy

**Figure 2:** The resected part of the colon

**Figure 3:** Invagination was found at the transverse colon nearer to splenic flexure than hepatic flexure
had four postoperative days of hospital stay without any complication and then discharged.

**Discussion**

Lipoma within the duct is rare, esophageal lipomas account for 0.4% of all benign duct neoplasms. Gastric lipomas are commonly in submucosa within the antrum and remarkably rare, represent <5% of lipomas of the gastrointestinal tract,[17,18] and it is more common in women between 40 and 70 years old.[9] Colon lipomas are rare, benign, and are typically asymptomatic and diagnosed accidentally in surgery, colonoscopy, or autopsy.[10] In some cases, they are often symptomatic and manifest with lower abdominal pain, bowel habits change, intussusceptions, hemorrhage, or perforation.[10] Colon lipoma is generally located within the right colon: 19% within the cecum, 38% in the ascending colon, 22% within the transvers colon, 13% within the descending colon, and 8% into the sigmoid region.[11] Intussusception is the telescoping of a proximal portion of the epithelial duct surrounded by the lumen of the nearby segment.[12] This state is rare in adults and the diagnosis is typically made during laparotomy.[13] Intussusception may arise at sites of benign or malignant lesions or are often with unknown etiology.[14] Among the adult population, 90% of lesions are related to a pathology, with a benign or malignant tumor origin.[15] Benign neoplasms are more frequent in small bowel intussusception, on the other hand, the incidence of malignant lesions is greater in colonic intussusception. Previous reports revealed around two thirds of adult Colo colic intussusceptions have a malignant etiology, other etiologies include polyps, anastomosis, adenomas, endometriosis, and interestingly lipomas, resection of the intestine including the lipoma, and therefore the invaginated segment of the colon can be the treatment in these cases.[16,17] Preoperative diagnosis is important for planning in our case; the lesion was 55 × 3 × 3 mm in size and caused colocolic intussusception. Colonoscopy may be a useful gizmo to diagnose if there is colonic lipoma or cancer or other tumors by direct visualization of the lipoma.[11,18] Invagination needs immediate intervention.[11] Intussusception was present in our patient, and diagnosis of lipoma was established with pathology before the surgery.

**Consent for publication**

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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