

# CASE REPORT

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## LIPOMATOUS POLYP OF THE LARGE INTESTINE PRESENTING WITH INTUSSUSCEPTION

Sarvesh B.M<sup>1</sup>, Gowri Sankar R<sup>2</sup>, Lakshmana Rao<sup>3</sup>, C.S. Subbramanian<sup>4</sup>, P. Viswanathan<sup>5</sup>

### HOW TO CITE THIS ARTICLE:

Sarvesh BM, Gowri Sankar R, Lakshmana Rao, CS Subbramanian, P Viswanathan. "Lipomatous polyp of the large intestine presenting with intussusception". Journal of Evolution of Medical and Dental Sciences 2013; Vol2, Issue 33, August 19; Page: 6235-6240.

**ABSTRACT:** Lipomas of the colon and rectum are uncommon tumours. They occur singly or sometimes multiple. They arise usually from the submucosa<sup>1, 2</sup>. Lipomas in the large intestine are generally asymptomatic but sometimes they may act as leading point for intussusception. Intussusception occurs when a segment of intestine constricted by a wave of peristalsis telescopes into the immediately distal segment.<sup>3</sup> A case of 40 year old male patient presenting with pain abdomen and diarrhoea-on and off for a duration of 6 weeks diagnosed on radiological examination as colo-colic intussusception due to lipoma which was confirmed on histo-pathological examination is presented.

**KEY WORDS:-**Lipoma, Large intestinal Lipoma, Intussusception

**INTRODUCTION:** Lipomas are benign proliferations of mature adipose tissue arising in the submucosa and predominantly arise in the large intestine (51-70%) preferentially on the right side. They make up 0.035-4.4% of all intestinal neoplasm's<sup>4</sup>. They may be detected incidentally on endoscopy or present with symptoms related to their size and location. Lipomas less than 2cm in diameter are asymptomatic. Patient may present with pain which may be due to intussusception or bleeding per rectum due to ulceration of mucosa. Macroscopically, it appears as a sessile or pedunculated polyp with surface ulceration and congestion. Surrounding colonic wall may be damaged due to the intussusception caused by the lipoma. Microscopically mature adipose tissue with a thick capsule surrounding the tumour is seen. Complications of a large intestinal lipoma include ulceration, intussusception along with necrosis and haemorrhage<sup>1, 2</sup>. Secondary cellular changes can include nuclear hypertrophy, hyperchromasia, pleomorphism and fat necrosis<sup>4</sup>.

**CASE REPORT:** A 40 year old male presented with pain abdomen and diarrhoea-on and off for a duration of 6 weeks. On examination, general condition of the patient was normal, per abdomen examination revealed a mass in the left iliac fossa with tenderness. Patient was admitted and managed conservatively.

Haematological investigations revealed the patient to be anaemic (Hb=8.7gm/dl). Biochemical parameters like Lipid profile, Liver function tests, serum CEA was done and found to be within normal limits. Patient was a known diabetic on Insulin.

**CT ABDOMEN:** Multislice CT abdomen revealed- Focal coiled, bowel with in bowel loop in descending colon measuring 5cm with central hypodense lesion measuring 4x3x4cm acting as a leading point(HU-90 corresponds to fat value) seen in left hypochondrium just below the spleen and anterior to the left kidney. Target sign seen. Rectal air shadow normal. There is no evidence of proximal bowel dilatation or free fluid in the peritoneal cavity.

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Colonoscopy revealed a polyp near the splenic flexure.

A diagnosis of left colocolic intussusception due to Lipoma was made.

Patient had blood sugar fluctuations which were treated with Insulin sliding scale. Two units of blood were transfused to the patient.

Under general anaesthesia laparotomy was done. A colocolic intussusception was observed in the descending colon of about 8cm in length and 5cm from the splenic flexure confirming the preoperative diagnosis. Intussusception was reduced and splenic flexure clamped, ligated and released. Left limited hemicolectomy with end to end staple anastomosis was performed. The excised portion was sent for histo-pathological examination. Recovery was uneventful.

**GROSS:** A hemicolectomy specimen with serosal congestion measuring 15 x 8cm was received. Inner surface of the colon revealed- Normal rugosities of colon were present. A sessile polyp with ulceration was observed 8cm from the proximal resected margin measuring 5 x 4cm. Cut section of lesion showed solid grey-white, yellow areas. (see Figure I)

**MICROSCOPY:** Multiple sections from the polyp reveal features consistent with Lipoma with ulceration and granulation tissue. The rest of the intestine shows varying degrees of congestion. (See Figure II, III)

A final diagnosis of Colo-colic intussusception due to Lipoma near the splenic flexure was made.

**DISCUSSION:** Lipomas in the large intestine generally tend to be asymptomatic however depending upon the size and location they can be symptomatic. They tend to act as leading point causing colonic intussusception as in the present case.

Intussusception occurs when a segment of intestine constricted by a wave of peristalsis telescopes into the immediately distal segment<sup>3</sup>. Intussusception, usually thought of as a childhood condition, may be encountered in adults as well, and is then more often associated with underlying pathology. In adults it is a rare condition, making up only about 1% of patients with bowel obstruction.

Intussusception can be classified according to location (small bowel or colon) or according to the underlying aetiology [neoplastic (benign or malignant), non-neoplastic or idiopathic].

About 80–90% of intussusceptions in adults are secondary to an underlying pathology. Approximately 65% due to benign or malignant neoplasm, 15–25% of cases are due to Non-neoplastic processes, while idiopathic or primary intussusceptions account for about 10%. 50–60% of Intussusceptions in the large bowel are more likely to have a malignant aetiology since malignant lesions tend to be more common in the colon. Primary malignant lesions (adenocarcinoma and lymphoma) are the most common underlying malignant lesions in the colon. Benign lesions constitute about 30% and include neoplasms such as lipoma, leiomyoma, adenomatous polyp, endometriosis (appendiceal) and previous anastomosis. About 10% of intussusceptions in the colon are due to idiopathic causes.<sup>5</sup>

A review of 1400 cases of gastrointestinal lesions revealed 51.1 % cases of lipoma were present in the colon when compared with all other locations in the digestive tract. Lipomas constitute the most frequent benign tumour of the colon and rectum after adenomas. No preferential site was observed within the colon itself. Clinical latency was associated with 30.3 % of the colorectal cases reviewed, and radiological exams were generally unable to diagnose lipomas.<sup>6</sup>

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In a review of 20 acute adult intussusception showed a male preponderance (M:F=3:2). Minimum age of the patient was 16-maximum age of the patient was 71 years with an average age of 41 years. The clinical and radiological findings were suggestive of bowel obstruction (N = 14), peritonitis (N = 5) and appendicular abscess (N = 1). Correct preoperative diagnosis of acute intestinal intussusceptions was established in 6 cases. Type of intussusception was jejunojejunal (N = 1), ileo-ileal (N = 8), ileocolic (N = 1), ileo cecocolic (N = 7) and colocolic (N = 3). Necrosis was found in the intussusceptum in 10 cases and a tumour on the lead point in 14 cases (5 benign lesions and 9 malignant ones). For intussusception involving the colon, all patients underwent en bloc resection with immediate anastomosis.<sup>7</sup>

In a retrospective review of 41 cases of adult intussusception a male predominance (28 men), with a mean age of 58 years (with a minimum age of 19-maximum age of 83 years) was reported. Twenty-five patients were diagnosed with enteric intussusception and 21 patients with colonic intussusception. Disease in the majority of patients (76.1%) was caused by a benign lead point. The most common symptom was abdominal pain, which was seen in all patients. The preoperative diagnosis was 89.1% because of the wide use of abdominal computed tomography (CT) which was the most sensitive diagnostic modality (88.6%). 76% of patients with enteric intussusception and 28.6% with colonic intussusception underwent operative reduction. Two patients died of postoperative complications.<sup>8</sup>

In a review of 20 cases of adult intussusception the mean age was 47.7 years. Abdominal pain, nausea and vomiting were the most common symptoms. The majority of intussusceptions were in the small intestine (85%), while 15% cases were in the colon. Among enteric intussusceptions, the majority (14 cases) was secondary to a benign process; one was secondary to metastatic lung adenocarcinoma while all colonic lesions were malignant. All cases were treated surgically.<sup>9</sup>

In a review of adult intussusception in Asians, there was equal sex prevalence (7 males and 7 females) with a mean age of 41.9 years. Minimum age of patient was 17-Maximum age of the patient was 77 years who presented with abdominal pain. The most reliable diagnostic technique was computed tomography as 80% of the cases were diagnosed correctly (8 diagnoses from 10 CT scans). A preoperative diagnosis was established in 12 cases. The most common invagination was ileocolic (8 cases), followed by enteric (5 cases) and colocolic in 2 (coexistence of 2 lesions in one patient). The lead point of the enteric intussusceptions was benign in three cases and malignant in two, while ileocolic invaginations they were divided equally (4 benign and 4 malignant). Lead point of colocolic lesions were benign (2 cases). Conservative treatment was implemented for 4 patients and surgery for 10 (7 in emergency).<sup>10</sup>

The clinical presentation and appearance on radiological investigations in the present case are consistent with the findings reported by others. From the above it can be inferred that intussusception in an adult is mostly due to a pathological lead point with abdominal pain as the most common complaint, CT abdomen is the most sensitive investigation.

It is important to consider the entity of Lipoma in the colonic region in cases of Colo-colic intussusception.

**ACKNOWLEDGEMENT:** We take the privilege of thanking the Dean and the Medical Superintendent, Faculty of Medicine, Dr. L. Lakshmana Rao, H.O.D., Department of Pathology, and the patient, for allowing us to take on this case for presentation.

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## Macroscopy :-



Figure 1: Shows cut section of intestine noticed by the rugosities of the mucosa, a sessile polyp measuring 5cms in diameter, the c/s of which shows Grey white to yellow appearance.

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## Microscopy: -

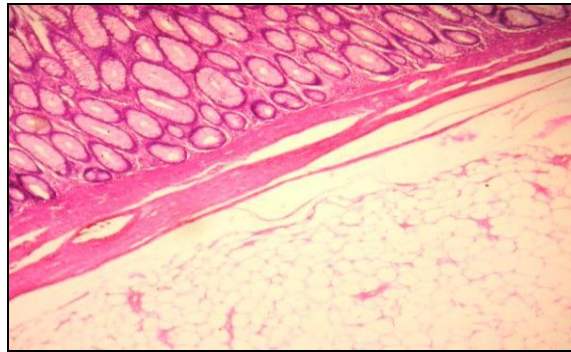


FIGURE 2 - STAIN: H & E,  
MAGNIFICATION: 10x

A Fibrous capsule enclosing the tumor composed of benign adipose tissue observed, deep to the muscular layer.

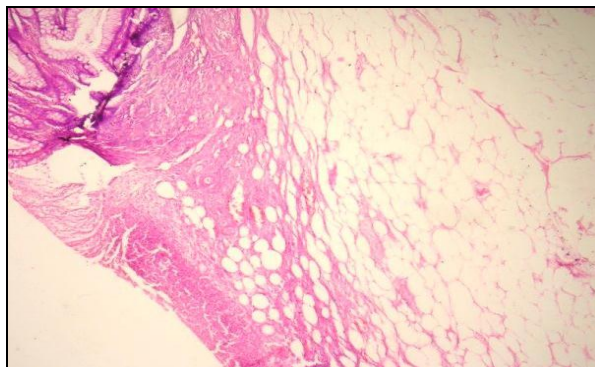
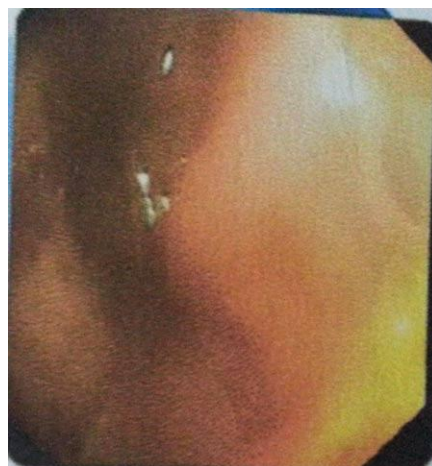


FIGURE 3- STAIN: H & E  
MAGNIFICATION: 20x

Mucosa with lesion, surface of which is ulcerated and shows inflammatory reaction, tumour composed of benign mature adipose tissue.



Colonoscopic picture - An Ulcero-proliferative growth seen at the level of 33cm

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Ultrasonogram picture-  
Left iliac intraluminal intestinal mass



Post operative scar picture

## AUTHORS:

1. Sarvesh B.M.
2. Gowri Sankar R
3. Lakshmana Rao
4. C.S. Subbramanian
5. P. Viswanathan

## PARTICULARS OF CONTRIBUTORS:

1. 3<sup>rd</sup> Year Post Graduate, Department of Pathology, Rajah Muthiah Medical College, Annamalai University.
2. 3<sup>rd</sup> Year Post Graduate, Department of Pathology, Rajah Muthiah Medical College, Annamalai University.
3. Professor and HOD, Department of Pathology, Rajah Muthiah Medical College, Annamalai University.
4. Professor and HOD, Department of Surgery, Rajah Muthiah Medical College, Annamalai University.

5. Professor, Department of Pathology, Rajah Muthiah Medical College, Annamalai University.

## NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. P. Viswanathan,  
Professor, Department of Pathology,  
Faculty of Medicine,  
Rajah Muthiah Medical College,  
Annamalai University, Chidambaram,  
Tamilnadu, India, PIN - 608002.  
Email- drssrinath@gmail.com

Date of Submission: 01/08/2013.  
Date of Peer Review: 02/08/2013.  
Date of Acceptance: 12/08/2013.  
Date of Publishing: 14/08/2013