

## **Submucosal lipoma of colon - A common lesion at an uncommon location**

**Dr. Sujata S. Giriyan<sup>1</sup> and Dr. Diksha Gupta<sup>2\*</sup>**

<sup>1</sup>Professor and Head of Department, <sup>2</sup>Postgraduate, Department of Pathology, Karnataka Institute of Medical Sciences, India

### **\*Correspondence Info:**

Dr. Diksha Gupta,  
Department of Pathology,  
Karnataka Institute of Medical Sciences, India  
E-mail: [diksha.dg@gmail.com](mailto:diksha.dg@gmail.com)

### **Abstract**

Submucosa of the colon is a rare site for the formation of lipomas, which are usually asymptomatic. A 57 year-old male presented with 25 days-long history of abdominal pain. CT scan showed colo-colonic intussusception. The intussuscepted segment was resected. On histopathology, diagnosis of submucosal lipoma of colon was given. Colonic lipomas often pose a diagnostic challenge. A definitive diagnosis of colonic lipoma is often obtained from histopathological examination of the resected specimen.

**Keywords:** Benign tumour, Colon, Intussusception, Intestinal Lipoma.

### **1. Introduction**

Intestinal lipomas are benign, slow growing mesenchymal neoplasms arising from connective tissue in the bowel wall. The incidence is from 0.035% to 4.4%. [1] Peak age of incidence is 6<sup>th</sup> to 7<sup>th</sup> decade and females are more prone. [2]

Lipomas of the large intestine are most commonly seen (in order of decreasing frequency) in the cecum, ascending colon, and sigmoid colon. Approximately 90% of colonic lipomas are located in the submucosa; the remainder of these tumors are subserosal or intramucosal in origin. They vary in size from several millimeters to 30 cm. [3] Lipomas measuring >4cm are considered Giant. [3][4]

Usually they are solitary but few cases of multiple lesions have also been reported. [5]

Lipomas are usually asymptomatic but rarely may cause abdominal pain, bleeding, obstruction and intussusception and may cause surgical emergencies. [2][6]

We report a case of symptomatic submucosal lipoma of ascending colon.

### **2. Case Report**

A 57 year male presented with complaints of pain in right side of abdomen since 25 days. On examination tenderness was present in right hypochondrium.

Computerized tomography (CT) Abdomen and Pelvis revealed telescoping of caecum into proximal ascending colon and hepatic flexure. A large hypodense (-74 Hounsfield Units) lesion measuring 3.5×3.2 cm was seen acting as lead point, lying in the hepatic flexure and transverse colon. Diagnosis of colocolonic intussusceptions was made.

Resection anastomosis was performed under general anaesthesia.

**2.1 Gross:** Specimen consisted of segment of intestine consisting of ileum, cecum and ascending colon, measuring 12 cms in length, with attached appendix measuring 4cm in length.

There was a polypoidal mass in the ascending colon, measuring 4cm in diameter, the overlying mucosa was ulcerated (Figure 1).

**Figure 1: Resected specimen showing polypoidal tumour measuring 4 cm in diameter**



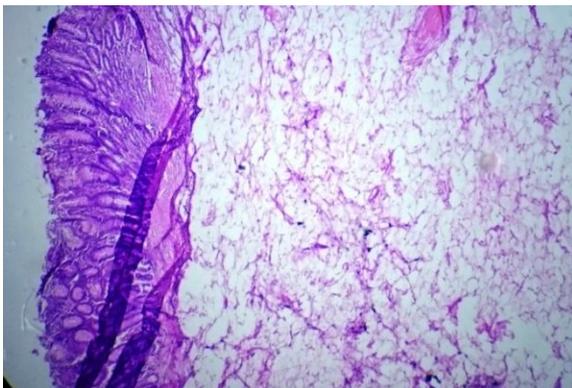
Cut section of the polypoidal mass showed yellow areas (Figure 2).

**Figure 2: Cut section of the polypoidal mass showing yellow areas.**

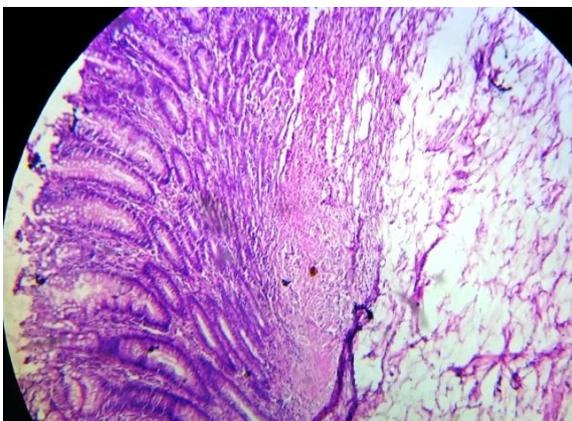


**2.2 Microscopy:** Section studied from the polypoidal mass showed lobules of mature adipocytes in the submucosal layer of the colon (Figure 3 and 4). The margins showed normal mucosa. The appendix was unremarkable.

**Figure 3: Microscopy showing lobules of mature adipocytes in the submucosal layer of colon. H & E 4X10**



**Figure 4: Microscopy showing lobules of mature adipocytes in the submucosal layer of colon. H & E 10X10**



### 3. Discussion

Bauer first described lipoma of colon in 1757. [1][4][5] Although they are the most common benign nonepithelial intestinal tumours, they are rare

benign tumours[6] They are rare tumours that can mimic malignant lesions.[7]

Less than 30% of the lipomas reported in literature are symptomatic.[5] Lipoma >2cm in diameter is likely to be symptomatic.[1][6][8] Symptoms of submucosal lipoma are not specific, the correct diagnosis may be difficult to reach.[6][9] Rarity of these tumours and lack of specific symptoms and signs often poses a diagnostic challenge.[9][10]

Endoscopically they have the characteristic smooth yellow polypoidal appearance. Three signs contribute to the diagnosis in colonoscopy- the cushion sign (probing yields a pillow like indentation), the tenting effect (grasping overlying mucosa with forceps gives a tented appearance) and the naked fat sign (fat extrudes out at the biopsy site).[8][10][11]

On Barium enema lipoma appears as an ovoid, well-demarcated filling defect. The characteristic sign is the squeeze sign (the tumour can deform by external pressure or peristalsis).[9]

CT is considered to be the definitive diagnostic measure in recognising colon lipomas because the masses present characteristic fatty densitometric values.[9] An intussuscepted lipoma may show atypical appearance and may be mistaken for other tumour.[6]

Biopsy is unlikely to provide adequate tissue as the lesion is covered by normal or ulcerated mucosa.[4] Accurate preoperative diagnosis is always difficult because they can be mistaken for another type of neoplasm.[8]

Asymptomatic lipomas do not need treatment.[6][9] Resection should be considered for those more than 20mm in diameter.[9] Symptomatic lipomas usually require surgical intervention.[6] With regard to surgery, a wide range of operative techniques using conventional laparotomy and mini-laparotomy have been described. However, Laparoscopic procedures have recently been reported as alternative to laparotomy for colonic lipomas.[8]

A definitive diagnosis of colonic lipoma is often obtained from histopathological examination of the resected specimen.[6][8]

### 4. Conclusion

Lipoma of the large intestine is very rare. Accurate preoperative diagnosis is difficult and it is often mistaken for adenomatous polyp or carcinoma. A definitive diagnosis of colonic lipoma is often obtained from histopathological examination of the resected specimen.

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