

**A CASE OF SUBMUCOSAL INTESTINAL LIPOMA**

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**ABSTRACT**

Colonic lipomas are uncommon and usually remain asymptomatic. Large lipomas however can cause intestinal obstruction and require surgical intervention. This is a case of submucosal colonic lipoma presenting with obstructive symptoms and mimicking colonic carcinoma on colonoscopy warranting surgery. Diagnosis of submucosal lipoma was made on histopathological assessment of the tumor mass, therefore it should be considered as a differential diagnosis while evaluating a patient with obstructive symptoms.

**KEYWORDS:** Colon, Obstruction, Lipoma, GI neoplasms.

**INTRODUCTION**

Lipoma is the most common benign mesenchymal tumor of intestine and the second most common benign tumor of the colon. Lipomas are silent, slow growing and are most often found incidentally.

Colon is the most common site of occurrence with the reported incidence of 0.2-4.4%. The other common locations include caecum, sigmoid, esophagus, stomach and small intestine.<sup>[1,2]</sup>

**CASE REPORT**

We present a case of a 35 year old female patient who presented with symptoms of pain in the right iliac fossa, lumbar region and constipation for 15 days.

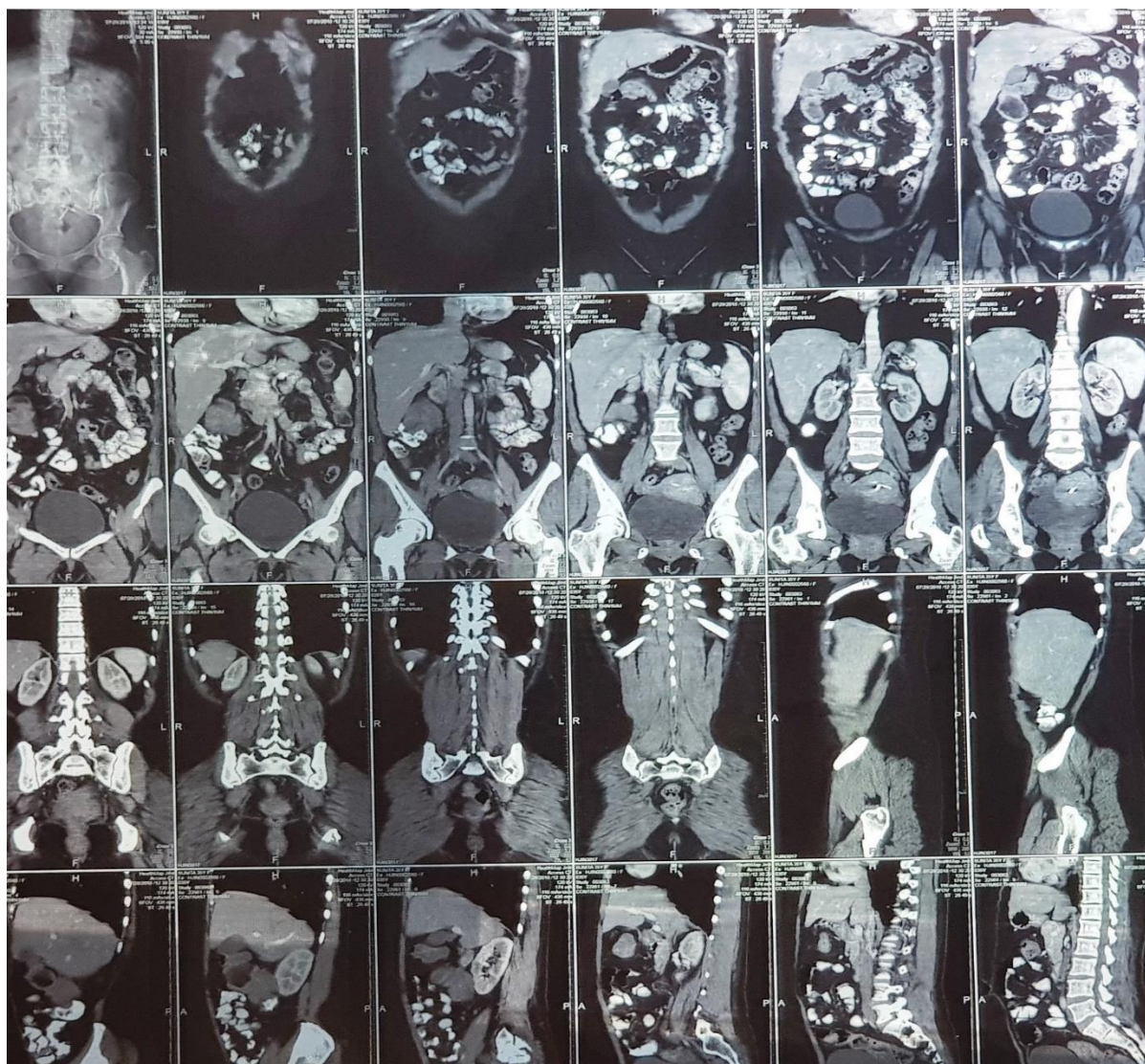
On examination, there was tenderness in the right iliac fossa and lumbar region. USG abdomen revealed a mass of size 47x45 mm in the right hypochondrium suggestive of gut mass (?intussusception).



**Figure 1: USG: Mass in right hypochondrium.**

CECT abdomen showed a circumferential short segment heterogeneously enhancing mural thickening involving ascending colon distal to ileocecal junction with a well-defined intraluminal fatty attenuating lesion at its distal

end and irregular mucosal outline at the proximal end causing focal luminal stenosis. Possibility of a lipomatous polyp was suggested and colonoscopy was advised.



**Figure 2: CT: Heterogeneously enhancing mural thickening suggestive of a lipomatous polyp.**

On colonoscopy, ascending colon revealed a globular mass like lesion obstructing the lumen and the scope could not be passed beyond it. An impression of ascending colon volvulus/ malignancy was given. Her CEA (serum) levels were within normal limits (1.77 ng/ml).

The patient was then taken up for surgery. Right hemicolectomy was performed and the specimen was sent for histopathology.

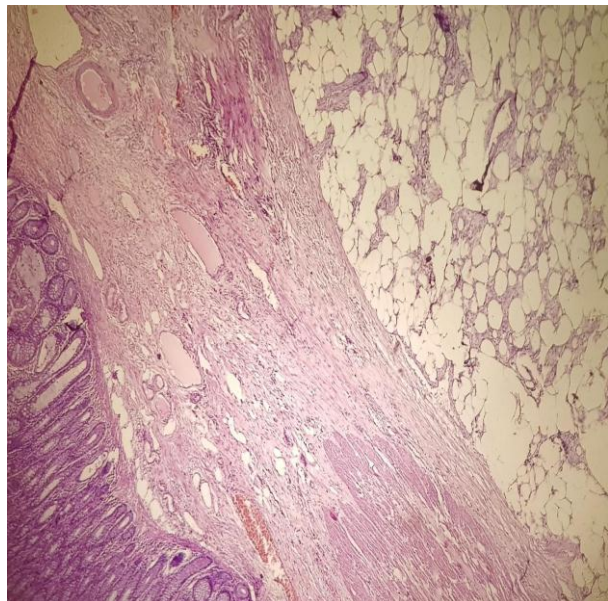
Macroscopically, right hemicolectomy specimen measured 24 cm in length which on sectioning showed a well circumscribed, encapsulated, polypoidal, sessile mass measuring 3x3cm. Cut surface of the mass was yellow, greasy and homogenous.



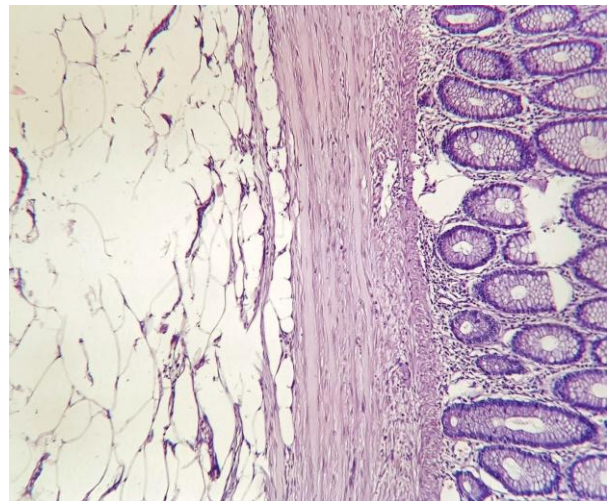
**Figure 3: Gross: Exophytic mass in the intestinal lumen. Cut surface was homogenous, yellow.**



Microscopic sections examined revealed normal intestinal wall structure along with an encapsulated tumor mass in submucosa composed of lobules of mature adipose tissue separated by fibrous septae without any cellular atypia. A diagnosis of submucosal lipoma was made.



**Figure 4: Microscopy: The tumor was well circumscribed, covered by mucosa and comprising of mature adipose tissue. (H&E; x100).**



**Figure 5: Microscopy: Proliferating fat cells in the submucosal layer (H&E; x400).**

## DISCUSSION

Lipomas of GI tract are benign tumors derived from mature adipocytes. They were first reported by Bauer in 1757.<sup>[2,3]</sup>

They are commonly seen in the age group of 50-60 years and rarely occur in the young.<sup>[4]</sup>

Gastrointestinal lipomas are submucosal in 90% of cases and subserosal in the remaining 10%. They are mostly

asymptomatic and symptoms, when present, correlate with the size of the tumor. Giant lipomas (>4cm) are almost always symptomatic. Intestinal lipomas may also present with mucosal ulceration, perforation, obstruction, intussusception and haemorrhage.<sup>[4]</sup>

Their main differentials include adenoma, adenocarcinoma and liposarcoma.<sup>[5]</sup> Lipomas are diagnosed preoperatively with 67% accuracy.<sup>[6]</sup>

Endoscopic USG can help determine the size and layer of origin of the colonic submucosal lesions.

On CT, lipoma is visualised as a well delineated mass with absorption density characteristic of fatty tissue.<sup>[1]</sup>

In colonoscopy, the 3 diagnostic signs observed are:<sup>[2]</sup>

1. The cushion sign (probing the polyp with a closed biopsy forceps will yield a pillow like indentation)
2. Tenting effect (grasping the overlying mucosa with biopsy forceps presents a tent like appearance)
3. Naked fat sign (biopsies may result in an extrusion of yellowish fat).

Kate et al<sup>[7]</sup> and Mouaqit et al<sup>[8]</sup> reported cases of giant lipoma and pedunculated colonic lipoma presenting with colo-colonic intussusception. A simultaneous submucosal colonic lipoma with an overlying tubulovillous adenoma has been reported<sup>[5]</sup> and cases of multiple lipomatosis involving small and large intestine causing obstructive symptoms have been described.<sup>[9]</sup>

Though MRI is the best imaging method for diagnosis of lipoma, it is not included in the standard diagnostic algorithm and histopathology remains the most reliable diagnostic tool.<sup>[3]</sup>

Asymptomatic lipoma does not require any treatment. Lipomas larger than 4cm require surgical intervention.<sup>[1]</sup>

The type of surgical intervention is based on clinical and intraoperative findings. Patients presenting with intussusception, obstruction and bleeding undergo appropriate resection while others undergo local excision.<sup>[1]</sup>

Malignant transformation of lipoma is a rare phenomenon and a recurrent lipoma has never been reported.<sup>[6]</sup>

## CONCLUSION

This was a rare and interesting case of colonic lipoma mimicking malignancy clinically and on colonoscopy. It should therefore be considered as a differential diagnosis while evaluating a patient with obstructive symptoms, rectal bleeding and intussusception. Larger symptomatic tumors warrant surgical intervention and histological assessment to ensure the benign nature of the mass.

**REFERENCES**

1. Janevska V, Spasevska L, Dukova B, Janevski V. Intestinal Submucosal Lipomas. *Maced J Med Sci.*, 2012; 5(1): 49-54.
2. Medhi P, Sharma M, Biswas M. Gastrointestinal lipoma presenting as colonic intussusception: Report of two cases. *APALM*, 2015; 2: 134-6.
3. Djolai MA, Andrejic BM, Ivanov DD. Lipoma of the sigmoid colon. *Vojnosanit Pregl*, 2013; 70(3): 319-21.
4. Pagaro PM, Deshpande A. Lipoma of intestine. *Med J DY Patil Univ*, 2005; 8(4): 525-7.
5. S Rait, A Goede, J Rait, N Mungalsingh. A submucosal colonic lipoma with an overlying tubulovillous adenoma: A case report. *IJPA*, 2015; 17: 1-4.
6. A Berna, Yerna O, Gurel S, Zarema F. Colonic lipomas mimicking colon cancer. *T J Path*, 2010; 26: 196-9.
7. Kate MS, Jain P, Patil CK. Giant colonic lipoma causing intussusception: A rare case report. *Global J Med Pub Health*, 2013; 2(5): 1-5.
8. Mouaqit O, Hasnai H, Chbani I, Oussaden A, Maazaz K, Amarti A et al. Pedunculated lipoma causing colo-colonic intussusception: a rare case report. *BMC Surg*, 2013; 13(1): 1-5.
9. Bahadursingh AM, Robbins PL, Longo WE. Giant submucosal sigmoid colon lipoma. *Am J Surg*, 2003; 186: 81-2.