Case Report

Colonic lipoma: A rare yet important cause of intestinal obstruction

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ABSTRACT

Gastrointestinal tract (GIT) lipomas are rare, benign mesenchymal neoplasm affecting all segments of the GIT and colon is affected most frequently. Reported incidence of colonic lipomas varies from 0.2% to 4.4%. These tumors are believed to arise from the connective tissue of the wall of the intestine. We here describe a case of 60-year-old male who presented with features of intestinal obstruction. The patient underwent left hemicolectomy for a mass involving proximal descending colon. Diagnosis of colonic lipoma was made on histopathological examination.

Key words: Colon, gastrointestinal tract, lipoma, mesenchymal neoplasm

INTRODUCTION

Gastrointestinal tract (GIT) lipomas are rare, benign mesenchymal neoplasm affecting all segments of the GIT and colon is affected most frequently.[1] Reported incidence of colonic lipomas varies from 0.2% to 4.4%.[2] These tumors are believed to arise from the connective tissue of the wall of the intestine.[3] They may be of a submucosal, subserosal, and intramural type. Among these, submucosal type is the most common. These tumors usually occur at older age in the sixth decade and more often remain asymptomatic.[1] Intestinal obstruction is a rare presenting feature of colonic lipoma.[3] We here describe a case of 60-year-old male who presented with features of intestinal obstruction. The patient underwent left hemicolectomy for a mass involving proximal descending colon, and diagnosis of colonic lipoma was made on histopathological examination.

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CASE REPORT

A 60-year-old male presented to the Emergency Department with subacute intestinal obstruction, abdominal pain, distention, and failure to pass feces. On examination, the abdomen was soft and distended. Colonoscopic examination revealed a polypoidal mass in the proximal descending colon. Mass had a smooth surface and was covered by normal-looking mucosa. Left hemicolectomy was performed, and the specimen was sent for histopathological examination. Gross examination showed a segment of large bowel measuring 34 cm in length. A well-delineated, sessile mass measuring 3.5 cm × 3 cm × 3 cm was seen in proximal descending colon [Figure 1], approximately 2.5 cm from the proximal resected margin. Cut surface of the mass was soft, yellowish, and greasy. Remaining bowel did not show any mass lesion. Sections from the tumor revealed sharply circumscribed proliferation of the lobules of adipose tissue in the muscularis propria layer [Figure 2]. Overlying mucosa appeared attenuated. No evidence of dysplasia or malignancy was seen. Histopathological diagnosis of

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Figure 1: Gross specimen of the large bowel showing well-delineated, sharply circumscribed mass lesion protruding into the bowel lumen. Cut surface of the mass is yellowish and greasy

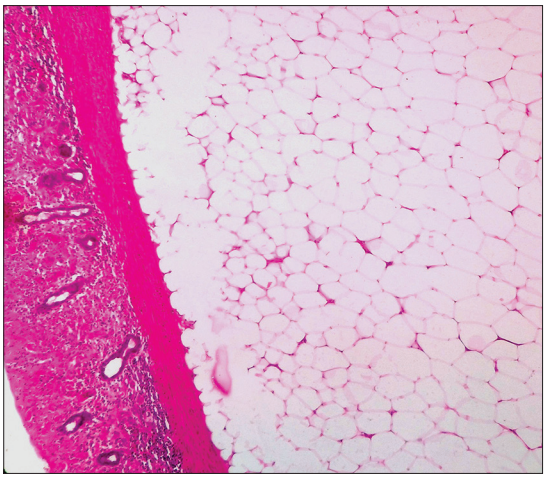

Figure 2: Microscopic section showing proliferation of lobules of adipocytes within the muscularis propria (H and E, ×100)

colonic lipoma was made. Postoperative recovery of the patient was uneventful.

DISCUSSION

Lipoma of the GIT is uncommon, and among cases reported, colon is the most common site. Although rare, they are the most common benign mesenchymal neoplasm of the GIT and next in frequency after adenoma. Bauer was the first one to describe this entity in GIT.[3] It usually occurs in the sixth decade with slight female preponderance.[1] Our patient belonged to old age group.

In the colon, the most preferred site is ascending colon (61%), followed by descending colon (20.1%), transverse colon (15.4%), and rectum (3.4%).[3] Submucosal lipoma of descending colon is rare as seen in the present case. Clinically symptomatic colonic lipomas account for 6% only, and symptoms are determined by the size and location of the mass.[1] As majority of the cases of colonic lipoma remain asymptomatic, diagnosis is usually incidental during colonoscopy or on imaging or following surgery performed for some other reason. Clinical presentation with intestinal obstruction, as seen in the present case, is an extremely uncommon manifestation of colonic lipoma. Several cases have been reported, where it led to intussusception, massive hemorrhage, prolapse, or perforation.[4] Grossly, these tumors are usually solitary and may appear rounded, sessile, or pedunculated, multilobulated, soft, and yellowish.[3,5] Larger lipomas may undergo surface ulceration with bleeding.[6]

For diagnosis of intestinal lipomas, various diagnostic modalities such as barium enema, endoscopic ultrasonography (USG), computed tomography scan, colonoscopy, and histopathological examination are in use.

On barium enema, lipoma shows squeeze sign due to tumor deformity by peristalsis; although USG has limited utility due to the presence of gas in the abdomen, endoscopic USG demonstrates hyperechoic colonic lesion.[5] It also provides information regarding the involvement of muscularis and serosa and helps in assessing the depth of the lesion which is required for selecting the type of procedure, endoscopy versus surgical resection, to be undertaken for their removal. On colonoscopy tent sign, cushion sign and naked fat sign are described.[3,5,7]

Several theories have been proposed regarding the development of GIT lipomas; however, none has been validated till date. According to these postulated theories, defect in the development of lymphovascular circulation leads to localized overgrowth of adipose tissue forming tumor-like masses; another belief is that chronic inflammation and irritation lies there development.[3]

Regarding the treatment of this lesion, it is believed that as long as the tumor is small and asymptomatic, no treatment except for observation is required, and the moment it becomes symptomatic, some intervention is mandatory in the form of either endoscopic resection or segmental resection depending on the size of the mass. Endoscopic resection can be performed when the tumor is smaller than 2.5 cm. Lipomas larger than 2.5 cm should be managed by segmental resection as endoscopic removal of larger lipomas is associated with greater risk of complication and also because larger lesions carry greater risk of being premalignant or malignant.[5,8,9] Autoamputation of the tumor with spontaneous expulsion is also reported.[10]

CONCLUSION

Intestinal lipomas are rare yet one of the clinically significant masses, and definite diagnosis of the lesion is

mandatory for appropriate management. Colonic lipomas need to be differentiated from other premalignant and malignant intestinal lesions which have similar presenting features, i.e., older age and presentation with obstruction, intussusception, and bleeding; hence, it is important to correctly diagnose them with the help of colonoscopy, imaging techniques, and histopathological examination.

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Conflicts of interest
There are no conflicts of interest.

REFERENCES

1. Nallmothu G, Adler DG. Large colonic lipomas. World J Clin Cases 2015;3:457-61.
2. Vecchio R, Ferrara M, Mosca F, Ignoto A, Latteri F. Lipomas of the large bowel. Eur J Surg 1996;162:915-9.
3. Andrei LS, Andrei AC, Usurelu DL, Puscasu LI, Dima C, Preda E, *et al*. Rare cause of intestinal obstruction - Submucous lipoma of the sigmoid colon. Chirurgia (Bucur) 2014;109:142-7.
4. Katsinelos P, Chatzimavroudis G, Zavos C, Paroutoglou G, Papaziogas B, Kountouras J. A novel technique for the treatment of a symptomatic giant colonic lipoma. J Laparoendosc Adv Surg Tech A 2007;17:467-9.
5. Agrawal A, Singh KJ. Symptomatic intestinal lipomas: Our experience. Med J Armed Forces India 2011;67:374-6.
6. Gould DJ, Anne Morrison C, Liscum KR, Silberfein EJ. A lipoma of the transverse colon causing intermittent obstruction: A rare cause for surgical intervention. Gastroenterol Hepatol (N Y) 2011;7:487-90.
7. Ghanem OM, Slater J, Singh P, Heitmiller RF, DiRocco JD. Pedunculated colonic lipoma prolapsing through the anus. World J Clin Cases 2015;3:457-61.
8. Bentama K, Chourak M, Chemlal I, Benabbou M, Raiss M, Hrora A, *et al*. Intestinal subocclusion due to colonic lipoma: A case report. Pan Afr Med J 2011;10:22.
9. Geraci G, Pisello F, Arnone E, Sciuto A, Modica G, Sciumè C. Endoscopic resection of a large colonic lipoma: Case report and review of literature. Case Rep Gastroenterol 2010;4:6-11.
10. Gupta AK, Mujoo V. Spontaneous autoamputation and expulsion of intestinal lipoma. J Assoc Physicians India 2003;51:833.