

Case Report

Giant Submucosal Lipoma of Sigmoid Colon

Hayedeh Haeri, Alireza Alaie Alamooti, Alireza Abdollahi

Imam Khomeini Hospitals' complex, Dept. of Pathology, Tehran University of Medical Science, Tehran, Iran

ABSTRACT

Lipomas of the gastrointestinal Tract are relatively uncommon in clinical practice. Most cases are asymptomatic with small tumor size and do not need any special treatment but the large ones are known to cause symptoms such as abdominal pain, obstruction, intussusceptions, and bleeding. The majority (90%) of these lesions are submucosal with predominantly right sided with a slight preponderance in females. Recurrence or malignant transformation has not documented in these lesions. We present a case of giant submucosal lipoma in a 33 years old male in sigmoid colon presenting with abdominal pain and rectal bleeding from Imam Hospitals' complex, Tehran-Iran. In patients with gastrointestinal symptoms and large mass in sigmoid and with non-specific findings in colonoscopy, this disease has to be taken into consideration.

Key words: Lipoma, Sigmoid colon, Iran

Introduction

Lipomas of the colon are rare. These submucosal lesions found at colonoscopy may attain substantial size of up to several centimeters in diameter. They commonly occur in the right colon and more often in women (1,2). Although the majority remains asymptomatic, colonic lipomas may present with symptoms such as pain, diarrhea, obstruction, and bleeding and may be the lead point for intussusceptions. Size >2 cm appears to correlate with symptomatology. They are often observed in the absence of symptoms (1-3). They may warrant removal, however, to exclude confusion with other lesions that have a malignant potential. The decision

to remove them and how best to do this, either endoscopically or surgically, remains controversial (1). Colonic lipomas are benign tumors with no reported cases of malignant transformation (1, 4). This case report shows in patients with or without gastrointestinal symptoms and large mass in sigmoid and with non-specific findings in colonoscopy, this disease (Giant submucosal lipoma) has to be taken into consideration.

Case Report

A 33-year-old man presented with abdominal pain and hematochezia. He had no significant previous

Received: 30 January 2009

Accepted: 1 May 2009

Address communications to: Dr Alireza Abdollahi, Imam Khomeini Hospitals complex, Department of Pathology, Tehran University of Medical Science, Tehran, Iran

Email: dr_P_abdollahi@yahoo.com

medical history and a system review was negative. Physical examination revealed a well-nourished individual in apparently good health without peripheral lymphadenopathy, fever or weight loss. He had only a low tenderness in lower abdominal region in physical examination. Laboratory examination (In Central Laboratory of Imam Hospitals' complex, Tehran-Iran) revealed a normal cell blood count, biochemistry and other laboratory studies were normal. There were seen a submucosal swelling with surface erosion (Diameter=8 cm) in sigmoid colon in colonoscopy. Then performed colon mucosal biopsy that revealed non specific colitis. According to these features, the diagnosis of submucous tumor (SMT) was made. Barium enema revealed an ovoid filling defect with smooth border at the proximal area of sigmoid colon. Finally, the patient underwent laparotomy. Left hemicolectomy was performed. Macroscopy inspection of the resected colon segment showed a smooth round polypoid submucosal tumor with elastic character and 75 mm x 50 mm x 35 mm in size (Fig. 1). Microscopic study showed lobules of mature adipose cells separated by thin, delicate, fibrous septa. The tumor was surrounded a thin fibrous capsule. Myxoid area replace some of the fat lobules (Fig.2, 3).



Fig. 1. Macroscopic inspection of the resected colon segment showed a smooth round polypoid submucosal mass

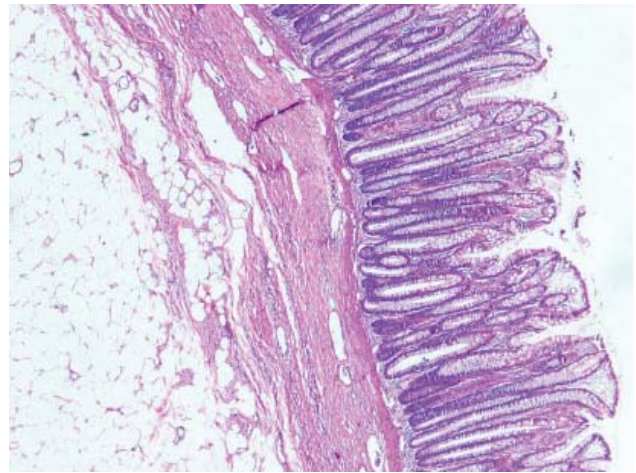


Fig. 2: Microscopic inspection of lesion showed a characteristic Lipoma of colon (Hematoxylin & Eosin, original magnification $\times 40$)

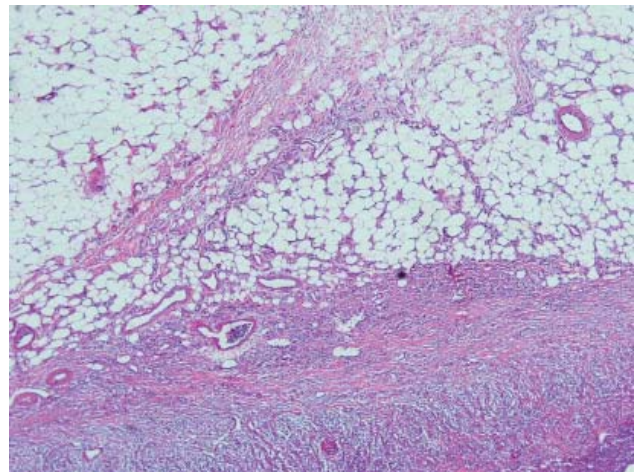


Fig. 3: Microscopic inspection of lesion showed lobules of mature adipose cells separated by thin, delicate, fibrous septa. (Hematoxylin & Eosin, original magnification $\times 40$).

Surgery and pathology certified the diagnosis of colon Lipoma.

Discussion

Colon lipoma was described initially by Bauer in 1757. The incidence was estimated to be about 0.26% (5). Elders are more likely to be involved, and neither male nor female was found to be predominant according to most of the current literatures, but this conception was disagreed by some authors who reported a higher incidence in women than in men (2, 6, 7). But this our case was in a 33 years old man. Most of the lesions were located at the right side of large bowel (nearly 90%) (2). But our case was in sigmoid colon. The majority of colon lipomas presented as single while only 10% of cases were multiple (2), our case was

single too. The most frequent type is submucosal lipoma with sessile or pedunculate appearance (2), our case was a submucosal pedunculated polypoid lesion. Generally, colon lipoma is symptomatic or asymptomatic. Sometimes it was detected accidentally in examinations for other purpose (2). Rogy *et al.* (6) insisted that the clinical manifestations were associated with the size of tumor and not related to the involved segment of large bowel. As widely accepted, Lipoma large than 20 mm in diameter, is likely to be symptomatic, it is quite unusual that the lipoma with a maximum diameter of 33 mm is asymptomatic. The common symptoms of colon lipomas include abnormal bowel habits, abdominal pain, diarrhea, rectal bleeding, abdominal discomfort, and melena (6). Our patient had some symptoms such as abdominal pain, hematochezia or melena. Regarding the age and symptoms of these patients, malignant colon tumors are often considered. With the development of colonoscopy, barium enema and CT scan, some characteristic findings of colon lipomas are useful in making diagnosis (2). However, in another study (8) it was reported that colonic lipomas might be confused with malignant tumor at barium enema because of the presence of a filling defect. The diagnosis by this method is definite in less than 20% of cases. The characteristic of lipoma on barium enema is so – called squeeze-sign. Usually biopsy is not recommended in the patients with suspected Lipoma, because the lesion is beneath the normal mucosa and biopsy often can not promote diagnosis just as the result of non-specific colitis, it increases the risks of bleeding and perforation.

Patients with small asymptomatic colon Lipomas need regular follow-up and additional treatments are unnecessary. Large lipoma may cause symptoms so resection should be considered for those bigger than 20 mm in diameter (9, 10). Surgical resection seems to be the ideal choice of treatment, especially when the malignancy cannot be completely excluded (2, 11). The differential diagnosis for a sub mucosal swelling includes sub mucosal Lipomas, stromal tumors or extrinsic compression. A CT Scan rule out extrinsic compression but revealed no information on the nature of the swelling (10, 12, 13). The patient in question was a man and our tests brought us to the conclusion that the disease targets women more than men. The disease emerged from the sigmoid colon and it often strikes the right side colon, a huge single mass was distinguished accompanied by clinical signs, requiring consideration and more examination.

Therefore, in patients with Gastrointestinal symp-

toms and large mass in sigmoid and with non-specific findings in colonoscopy, this disease has to be taken into consideration.

The authors declare that they have no conflicts of interest.

References

1. Bahadursingh AM, Robbins PL, Longo WE. Giant submucosal sigmoid colon lipoma. *Am J Surg* 2003;186(1):81-2.
2. Zhang H, Cong JC, Chen CS, Qiao L, Liu EQ. Submucous colon lipoma: a case report and review of the literature. *World J Gastroenterol* 2005;28;11(20):3167-9.
3. Ryan J, Martin JE, Pollock DJ. Fatty tumours of the large intestine: a clinicopathological review of 13 cases. *Br J Surg* 1989;76(8):793-6.
4. Kim CY, Bandres D, Tio TL, Benjamin SB, Al-Kawas FH. Endoscopic removal of large colonic lipomas. *Gastrointest Endosc* 2002;55(7):929-31.
5. Notaro JR, Masser PA. Annular colon lipoma: a case report and review of the literature. *Surgery* 1991;110(3):570-2.
6. Rogy MA, Mirza D, Berlakovich G, Winkelbauer F, Rauhs R. Submucous large-bowel lipomas--presentation and management. An 18-year study. *Eur J Surg* 1991;157(1):51-5.
7. Radhi JM. Lipoma of the colon: self amputation. *Am J Gastroenterol* 1993;88(11):1981-2.
8. Kitamura K, Kitagawa S, Mori M, Haraguchi Y. Endoscopic correction of intussusception and removal of a colonic lipoma. *Gastrointest Endosc* 1990;36(5):509-11.
9. Tamura S, Yokoyama Y, Morita T, Tadokoro T, Higashidani Y, Onishi S. "Giant" colon lipoma: what kind of findings are necessary for the indication of endoscopic resection? *Am J Gastroenterol* 2001;96(6):1944-6.
10. Jiang L, Jiang LS, Li FY, Ye H, Li N, Cheng NS, *et al.* Giant submucosal lipoma located in the descending colon: a case report and review of the literature. *World J Gastroenterol* 2007 Nov 14;13(42):5664-7.
11. Lin HH, Chan DC, Yu CY, Chao YC, Hsieh TY. Is this a lipoma? *Am J Med* 2008;121(1):21-3.
12. Nebbia JF, Cucchi JM, Novellas S, Bertrand S, Chevallerier P, Bruneton JN. Lipomas of the right colon: report on six cases. *Clin Imaging* 2007;31(6):390-3.
13. Kaltenbach T, Milkes D, Friedland S, Soetikno R. Safe endoscopic treatment of large colonic lipomas using endoscopic looping technique. *Dig Liver Dis* 2008;40(12):958-61.