

Case Report

Lipoma of the Colorectum: Report of Three Cases

Chuin-I Lee
Sou-Jhy Yen
Ming-Hong Tsai
Shao-Jiun Chou
Tze-Kai Chen

*Division of Colon and Rectal Surgery,
Department of Surgery, Cardinal-Tein
Hospital
School of Medicine, Fu-Jen Catholic
University*

Lipoma is the second most common benign tumor of the colon. It often exists without symptoms. But when abdominal pain, partial obstruction, changes in bowel habits with constipation, or alternating diarrhea and constipation, anemia, a palpable abdominal mass, or rarely, rectal bleeding and intussusceptions—appear, patients with lipomas suffer from physical stress. The purpose of this paper is to present three cases of lipoma of the colon with unusual symptoms.

[*J Soc Colon Rectal Surgeon (Taiwan) 2009;20:44-48*]

Key Words

Colon;
Lipoma

Excluding adenomas, lipomas are the most common benign tumors of the colon. However, colonic lipomas are infrequently encountered in clinical practice. Though some lipomas cause abdominal pain, obstruction, or bleeding, most are asymptomatic. Diagnosis can be made by radiologic or endoscopic examinations. Radiographically, the tumor presents as a smooth radiolucent, intra-luminal, extra-mucosal, sessile or pedunculated mass. Endoscopically, the cushion and tenting signs help to assure the diagnosis. Even with advanced examinations, colonic lipomas remain underemphasized and sometimes misdiagnosed. Three cases with unusual symptoms are reported here to illustrate endoscopic and gross features of colonic lipomas in the rectum, transverse colon and ascending colon.

Case 1

A 54-year-old man suffered intermittent rectal

bleeding that began two months prior to admission. Physical examination revealed no findings except a prolapsed hemorrhoid upon straining. Hemoglobin was 11.0 g/dL and other lab data were normal. Electrocardiogram and chest x-ray disclosed no abnormality. During colonoscopy, a sessile mass with eroded surface, 1.5 cm × 1 cm in size, was found in the rectum, 10 cm from the anal verge, and easily removed. A wire snare was placed around the polyp and encircled the base of the tumor. Electrocautery current was applied and a clean separation of the polypoid mass from the base was obtained. The patient reported no discomfort during the removal of the polypoid mass (Fig. 1). Histological examination showed that the tumor was a lipoma. Follow-up studies for more than five years have shown no recurrence in this patient.

Case 2

An 84-year-old woman, who suffered for several

Received: November 13, 2008.

Accepted: March 30, 2009.

Correspondence to: Dr. Sou-Jhy Yen, Division of Colon and Rectal Surgery, Department of Surgery, Cardinal-Tein Hospital, XinZian, Taiwan. Tel: +886-968-648-237; Fax: +886-2219-3923; E-mail: blackyens@yahoo.com.tw

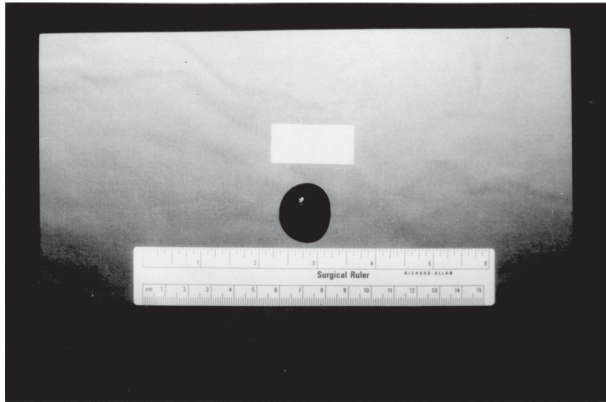


Fig. 1. Case 1: A tumor with sessile appearance, 1.5 cm × 1 cm in size, with an eroded surface.

months from intermittent abdominal fullness and constipation followed by diarrhea, was admitted to our ward with the chief complaint of abdominal distention, nausea, and vomiting for two days. The symptoms and signs subsided after conservative treatment of nasogastric tube decompression. Colonoscopic examination revealed a 2 cm × 2 cm, smooth, wide-base, polypoid submucosal mass (Fig. 2) located at the transverse colon, about 90 cm from the anal verge. During laparotomy, a mobile tumor was found and removed by segmental colectomy. Histological examination showed it was a lipoma.

Case 3

A 78-year old man had a history of abdominal fullness and intermittent abdominal pain for three years. Symptoms became more severe and intermittent abdominal pain over the right upper quadrant was noted one week prior to admission. Physical examination revealed diffuse abdominal tenderness with a leukocyte count of 12,000/mm³. BUN, glucose, urine and liver tests were normal. Electrocardiogram and chest X-ray disclosed no abnormality. A barium-enema study showed complete blockage of barium in the transverse colon with evidence of intussusception. During the subsequent laparotomy, a rounded, 2 cm × 3 cm mass causing intussusception was found in the ascending colon. After tumor removal, a partial resection of the ascending colon was carried out (Fig. 3). Pathological examination showed a lipoma.

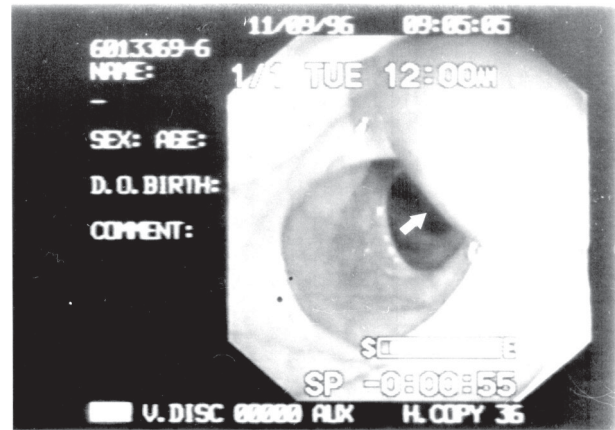


Fig. 2. Case 2: A colonoscopic picture of the tumor with wide base, polypoid appearance, 2 cm × 2 cm in size. The tumor was covered by normal mucosa.



Fig. 3. Case 3: A tumor with round appearance, 2 cm × 3 cm in size, located in the ascending colon.

Discussion

Three cases of lipoma of the colon and rectum are reported here. In the first patient, rectal bleeding was the presenting symptom; the second patient complained of abdominal distention, nausea, and vomiting after months of intermittent constipation and diarrhea and had lipoma of the transverse colon; and the third patient, with a large lipoma in the ascending colon, presented with intussusception and partial bowel obstruction.

Colonoscopic excision of the lipoma was done in the first patient and partial colectomies with end-to-end anastomosis were performed in the other two. All

three patients recovered well and remained free of symptoms.

The incidence of colonic lipomas has not been established accurately. Lipoma is the most common nonepithelial benign tumor that occurs in the colon, although adenomatous polyps far outnumber lipomas in the colon. However, lipomas of the colon make up 65% of the lipomas of the GI tract.^{1,2} The incidence of lipomas of the colon found in routine autopsy examinations has been reported between 0.035% and 4.4%.^{3,4}

Colonic lipomas are well-differentiated benign fatty tumors arising from deposits of adipose connective tissue in the bowel wall. Malignant change has not been reported. Approximately 90% are submucosal and 10% subserosal. A submucosal lipoma is covered by mucosa, and occasionally by muscularis mucosae, and grows toward the intestinal lumen.⁵ The mucosa overlying the tumor may become atrophic, congested, ulcerated, or even necrotic, or may retain its normal yellowish appearance. The subserosal type usually originates from appendices epiploicae and grows toward the peritoneal cavity.

Symptoms, when present, seem to be related to the size of the lipoma. A lipoma less than 2 cm in diameter rarely produces symptoms, while lipomas greater than 2 cm in diameter are more likely to be symptomatic. Fifty percent of patients with lipomas 3 to 4 cm in diameter have symptoms, and if the lipoma is greater than 4 cm in diameter, 75% of the patients have symptoms.⁶ The most common symptoms are abdominal pain followed by a change in bowel habits, bleeding, signs of obstruction, signs of intussusception, or rarely, a palpable mass.^{2,6} Colicky abdominal pain has been reported with obstruction or intussusception.

The most common sites are the cecum, the ascending colon and the sigmoid. Nearly one third of the colonic lipomas have been reported in the cecum, and only 5% have been reported in the rectum.⁷

Radiographically, lipomas appear as smooth, intraluminal, extramucosal, pedunculated or sessile masses. Because lipomas are more radiolucent than the surrounding water-density tissues, the correct diagnosis can be made by water enemas with low-kilovoltage roentgenograms according to Margulis and

Javonovich.⁷ Lipomas are also very soft and therefore, will change shape on barium enema examination, either during compression or evacuation. This characteristic is known as the "squeeze sign";⁸ intact folds are often seen to extend across the filling defect from side to side. Adenomas, terminal cysts, duplication cysts, myomas, and neurofibromas do not change shape in this manner. Despite these characteristics, the correct radiological diagnosis is seldom made.

CT scan is a useful tool for demonstrating large colonic lipomas and can provide definitive preoperative diagnosis. Characteristics of the colonic lipoma are: a spherical or ovoid mass with sharp margins and an absorption density of -40 to -120 Hounsfield units.⁹

Due to the radiolucency of fatty tissue, a barium enema is helpful for diagnosis by showing a relatively radiolucent mass. Generally, a lipoma appears as an ovoid, well-demarcated filling defect. On a CT scan image, a lipoma has a uniform appearance with fat-equivalent density and a smooth border. But for small lipomas, the diagnostic value of CT scanning is low.¹⁰

The current treatment of choice for a small colonic lipoma remains endoscopic resection or no intervention at all; for a large colonic lipoma, surgery. Marked improvement in endoscopic surgery has made resections of large colonic lipomas possible. Previously, an increased risk of colonic perforation limited the role of endoscopic resections for colonic lipomas. Recently, a novel technique for the treatment of colonic obstruction by a giant lipoma proved successful: two large clips were placed at the narrow base of the lipoma and multiple cuttings made on the mucosa covering the fatty tissue, using a needle-knife to facilitate discharge of the fat into the colon's lumen.¹¹ This performance demonstrates that mature techniques of the endoscopic surgeon can offer another choice instead of surgery to the patient.

The diagnosis of lipoma is usually not made preoperatively. These lesions are often confused with carcinoma and adenomas because of the age range of patients and the similarity in the roentgenologic appearance. However, body weight loss, cachexia, etc. are rare in patients with lipomas of the colon.

Although colonic lipomas seldom cause severe symptoms in patients and are easily removed by endo-

scope while they are small, severe symptoms like abdominal fullness, intestinal obstruction, intestinal bleeding and intussusceptions may appear as a lipoma grows larger. To prevent intestinal interruptions, we recommend early surgical intervention for large asymptomatic colonic lipomas. Further investigations of patients with atypical symptoms will be important to ensure diagnosis and a treatment of choice.

References

1. Gastro El B, Stearns Mans W. Lipoma of the large intestine: Review of 45 cases. *Dis Colon Rectum* 1974;15:441-4.
2. Ackerman NB, Chytain SQ. Symptomatic lipomas of the gastrointestinal tract. *Surg Gynecol Obstet* 1975;141:565-8.
3. Abu-Dalu J, Urea I. Lipoma of the colon: report of three cases. *Dis Colon Rectum* 1972;15:370-2.
4. Gastro EB, Stearns MW. Lipoma of the large intestine. *Dis Colon Rectum* 1972;15:441-4.
5. Danoff DM, Nisenbaum HL, Stewart WB, Moore RC, and Clahassey EB. Segmental polypoid lipomatosis of the colon. *Am J Roentgenol* 1977;128:858-60.
6. Pemberton L, Manax WG. Complete obstruction of the colon by lipoma. *Surg* 1971;69:139-41.
7. Gordon RT, Beal JM. Lipoma of colon. *Arch Surg* 1978;113:897-9.
8. Berk RN, Werner LG. Lipoma of the colon. *Am J Gastroenterol* 1974;61:145-50.
9. Ghidirim G, Mishin I, Gutsu E, Gagauz I, Danch A, Russu S. Giant Submucosal Lipoma of the Cecum: Report of a Case and Review of Literature. *Rom J Gastroenterol* 2005 Dec; 14(4):393-6.
10. 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 May 28;11(20):3167-9.
11. 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 Aug;17(4):467-9.

病例報告

大腸直腸脂肪瘤：參例病例報告

李俊毅 嚴守智 蔡明宏 周少鈞 陳之凱

新店天主教耕莘醫院外科部 大腸直腸外科

輔仁大學 醫學系

脂肪瘤是大腸良性腫瘤中第二常見的腫瘤，通常大部分的大腸脂肪瘤不會造成症狀。然而當大腸脂肪瘤在臨床上產生包括腹痛、排便習慣改變、便秘、便秘或腹瀉交替出現、部分腸阻塞、貧血或可以觸摸到的腹部腫塊及少見地直腸出血與腸套疊症狀，則會造成病患身體上的不適。本篇文章主要報告三例以少見之症狀呈現的大腸脂肪瘤病例。

關鍵詞 大腸、脂肪瘤。