

Giant Colonic Lipoma Causing an Ileocolic Intussusception

Chen-Ming Mai¹, Sheng-Chuan Hsi¹, You-Wen Cheng², Juen-Sean Lu¹,
Hong-Ming Chao¹, and Chien-Chih Yeh^{1*}

¹*Division of General Surgery, Department of Surgery, ²Department of Gastroenterology,
Taoyuan Armed Forces General Hospital,
Taoyuan, Taiwan, Republic of China*

Intussusception is less common in adults than in children. Intussusception in adults is associated with an identifiable etiology in 90% of cases. Lipoma is the second most common type of benign tumors of the colon, after adenomatous polyp. Small lipomas are usually asymptomatic, but giant lipomas are often presented as abdominal pain, vomiting, diarrhea, and bleeding. We reported a case presenting with ileocolic intussusception and found a giant colonic lipoma incidentally under colonoscopy. After surgical resection, the histopathologic examination of the specimen showed the configuration of submucosal lipoma, measuring 7.0×4.0×3.0 cm³ in diameter. Along with a review of the literature, the incidence, symptoms and treatment of colonic lipomas are discussed.

Key words: colonic lipoma, intussusception, colonoscopy, hemicolectomy

INTRODUCTION

Colonic lipomas are rare and an uncommon cause of surgical emergencies. Those causing surgical emergencies include obstruction, perforation, bleeding, and intussusception¹. Accurate preoperative diagnosis of colonic lipoma is often difficult for clinicians. However, computed tomography is a useful method to diagnose giant colonic lipoma. Surgical resection is a definitive treatment for large lipomas to relieve the symptoms or exclude malignancy^{1,2}. Here, we present a case with a giant colonic lipoma causing ileocolic intussusception and excellent prognosis after surgical intervention.

CASE REPORT

The 34-year-old female was robust until 5 days ago when she suffered from nausea, vomiting and intermittent dull epigastric pain. She denied any significant medical or surgical history. On physical examinations, her abdomen was soft and flat. Mild tenderness over right abdomen was observed. Besides, she had not noticed any symptoms of

weight loss, rectal bleeding or change in bowel habits. Blood work and urine tests did not reveal any abnormalities. But the stool was melanotic and strongly guaiac positive.

Subsequent gastroendoscopy revealed bile reflux complicated with acute gastritis. No peptic ulcers or neoplasms were found. Computed tomography of the abdomen showed a coil spring appearance mass about 7cm in diameter at ileocecal region (Fig. 1). Ileocolic intussusception was

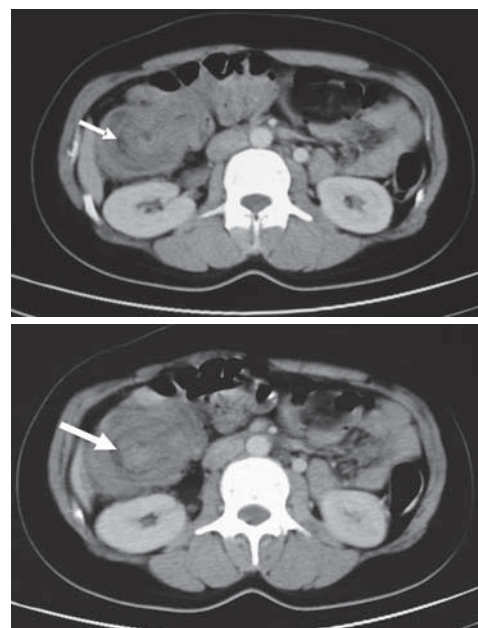


Fig. 1 Computed tomography of the abdomen showed a coil spring appearance mass (arrow) about 7cm in diameter at ascending colon.

Received: March 19, 2007; Revised: April 26, 2007;
Accepted: May 7, 2007

*Corresponding author: Chien-Chih Yeh, Depart of Surgery,
Taoyuan Armed Forces General Hospital, 168, Zhongxing
Road, Longtan Shiang, Taoyuan 325, Taiwan, Republic of
China. Tel: +886-3-4807795; E-mail: jacnicson@yahoo.
com.tw

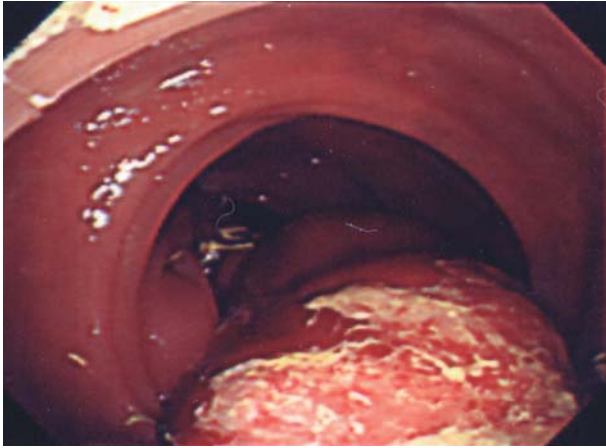


Fig. 2 Colonoscopy revealed a huge, well demarcated mass at ascending colon.

highly suspected. Afterward, colonoscopy was done and it revealed a huge, submucosal mass at ascending colon (Fig. 2). Endoscopic biopsy was performed and it showed a pattern of extensive necrosis without evidence of malignancy.

After integrating the above positive findings, surgical intervention was recommended. Minimal exploration with segmental resection was performed and a soft, mobile, intraluminal mass was found at ascending colon (Fig. 3). No regional lymph node enlargement or invasion of surrounding structure was observed. The histopathologic examination of the surgical specimen confirmed a submucosal lipoma with chronic ulcer, measuring $7.0 \times 4.0 \times 3.0 \text{ cm}^3$ in diameter. Postoperatively, no complication occurred and the patient was discharged 1 week later.

DISCUSSION

Intussusception is very common in children and mainly in those under the age of three. In children, the etiology was idiopathic and the ileocecal valve may be functioning as the lead point in ileocecal intussusception³. In the adult population, 90% of cases are associated with pathological lesions, with benign or malignant tumors functioning as the lead point in more than 65% of cases⁴. Moreover, lead points for intussusception include Meckel's diverticula, lymphoma, inverted appendix, foreign bodies, adhesion, and rarely, colonic lipoma. Colonic lipoma is the second most common benign tumor of the colon, after adenomatous polyp⁵. The majority of colonic lipomas are submucosal and some may be with a stalk. The distribution through the whole colon tends to favor the right side, particularly in elder women, with the majority found in the cecum (70%)^{2,3}.

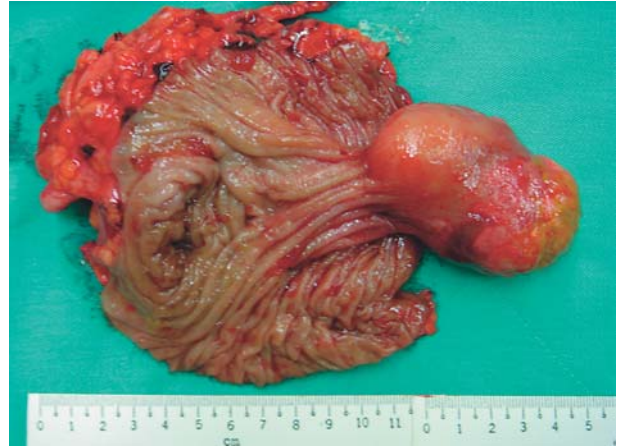


Fig. 3 A soft, mobile, and intra-luminal mass about $7.0 \times 4.0 \times 3.0 \text{ cm}^3$ in diameter was found at ascending colon.

Tumors less than 2 cm are usually asymptomatic, found incidentally and required no treatment. However, if there is suspicion of an adenomatous polyp, resection is warranted⁶. Lipomas larger than 4 cm are considered giant and produce symptoms in 75% of cases^{5,6}. Symptoms are usually abdominal pain, lower gastrointestinal bleeding, changes in bowel habits, obstruction, or, rarely, intussusception^{1,2,3,7}.

Computed tomography is an excellent method to diagnose giant colonic lipomas, by revealing a well demarcated, round, low-attenuated lesion in the lumen of the colon^{5,8}. Moreover, it helps to distinguish this entity from other common diseases, such as cholecystitis, diverticulitis, colonic polyps and malignancy. Barium enema and colonoscopy are additional assessment that may aid in diagnosis. Colonoscopy is mandatory to establish the location, size and morphology of the lesion. But clinicians should be aware that colonoscopic biopsies may be less histopathologic value as the lesion is beneath the normal mucosa¹. Differentiating a benign lipoma from malignancy before the operation is useful, because the diagnosis will affect the extent of surgical resection.

The definitive treatment for giant or symptomatic lipomas is surgical resection^{1,2}. Traditional laparotomies include enucleation, limited excision, segmental colonic resection, and hemicolectomy. Endoscopic resection has been reported but it is with a high incidence of perforation (43%)^{1,9}. For large and broader-based lesions, endoscopic removal could be associated with a high rate of perforation or bleeding, and is not recommended^{1-3,7}. It is suggested that lesions larger than 2 cm in diameter with symptom should be resected surgically^{1-3,7}.

In summary, intussusception in adults is rare and most

had an identifiable etiology. The diagnosis is difficult due to episodic and non-specific symptoms. Clinicians should have a high index of suspicion. The useful investigations are abdominal computed tomography, colonoscopy and barium enema. The surgical technique may be modified according the situation and surgical experience. More importantly, complete excision is effective of treatment and an overall well prognosis is expected.

REFERENCES

1. Tascilar O, Cakmak GK, Gun BD, Ucan BH, Balbaloglu H, Cesur A, Emre AU, Comert M, Erdem LO, Aydemir S. Clinical evaluation of submucosal colonic lipomas: decision making. *World J Gastroenterol* 2006 Aug 21; 12:5075-5077.
2. 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;14:393-396.
3. Rogers SO, Lee MC, Ashley SW. Giant colonic lipoma as lead point for intermittent colo-colonic intussusception. *Surgery* 2002;131:687-688.
4. Stubenbord WT, Thorbjarnarson B. Intussusception in adults. *Ann Surg* 1970;172:306-310.
5. Chiba T, Suzuki S, Sato M, Tsukahara M, Saito S, Inomata M, Orii S, Suzuki K. A case of a lipoma in the colon complicated by intussusception. *Eur J Gastroenterol Hepatol* 2002;14:701-702.
6. Bahadursingh AM, Robbins PL, Longo WE. Giant submucosal sigmoid colon lipoma. *Am J Surg* 2003; 86:81-82.
7. Peters MB Jr, Obermeyer RJ, Ojeda HF, Knauer EM, Millie MP, Ertan A, Cooper S, Sweeney JF. Laparoscopic management of colonic lipomas: a case report and review of the literature. *JSLS* 2005;9:342-344.
8. Franc-Law JM, Begin LR, Vasilevsky CA, Gordon PH. The dramatic presentation of colonic lipomata: report of two cases and review of the literature. *Am Surg* 2001;67:491-494.
9. Pfeil SA, Weaver MG, Abdul-Karim FW, Yang P. Colonic lipomas: outcome of endoscopic removal. *Gastrointest Endosc* 1990;36:435-438.

