

# Submucosal Lipoma Located in the Sigmoid Colon: A Strange Case Report and Review of the Literature

## Sigmoid Kolon Yerleşimli Submukozal Lipom: İlginç Bir Olgusu Sunumu ve Literatürün Gözden Geçirilmesi

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**ABSTRACT** Colonic lipoma is an uncommon tumor of the gastrointestinal tract. Most cases are asymptomatic, with a small tumor size, and do not need any treatment. The lipomas greater than 2 centimeters leads gastrointestinal symptoms, and submucosal lipomas are mostly located at ascending colon. However, we report a patient with a giant submucosal lipoma, in a maximum diameter of 5.5 cm, which leads abdominal pain and constipation, and was dropped out from the anus thorough lavage after a lavage performed by the patient with a garden hose. An erythematous focus was found in sigmoid colon during colonoscopy performed later and, her symptoms resolved. To the best of our knowledge, colonic lipoma that dropped out from the anus exceeding 5 cm in diameter has not been previously reported.

**Key Words:** Lipoma; colon, sigmoid

**ÖZET** Kolonik lipom gastrointestinal sistemin nadir görülen tümörüdür. Olguların çoğunda lipom küçük boyutlu olup tedavi gerektirmez. Literatürde 2 santimetreden büyük lipomların semptomu yol açtığı ve submukozal lipomların sıklıkla çıkan kolonda lokalize oldukları bildirilmektedir. Biz yazımızda karın ağrısı ve konstipasyona neden olan ve hasta tarafından bahçe hortumu ile yapılan lavaj sonrası anüsten düşen 5,5 santimetrelilik dev bir submukozal lipomu sizlerle paylaştık. Daha sonra hastaya yapılan kolonoskopide sigmoid kolonda eritemli bir odak izlenmiş ve hastanın semptomları düzelmiştir. Bildiğimiz kadarıyla şimdiye dek anüsten düşürülen 5,5 santimetre boyutlarında bir lipom literatürde bildirilmemiştir.

**Anahtar Kelimeler:** Lipom; kolon, sigmoid

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Lipoma of the colon usually detected incidentally at colonoscopy, surgery or autopsy is a rare, fatty benign tumor, with a reported incidence ranging between 0.2% and 4.4%.<sup>1</sup> Lipomas of the large intestine represent the third most common benign tumors after hyperplastic and adenomatous polyps.<sup>2</sup> The most common site of lipomas in the large intestine is the right hemicolon. They arise from the submucosa in approximately 90% of cases, but occasionally extend into the muscularis propria; up to 10% are subserosal.<sup>3</sup> The size of lipomas described in the literature ranges from 2 mm to 30 cm. The majority of patients are between 40 and 70 years of age. Colonic lipomas are more common in women than men.<sup>4-6</sup> Multiple lipomas are noted in 10-20% of cases, par-

ticularly when a lipoma is found in the cecum.<sup>5,7</sup> The most colonic lipomas are asymptomatic and need no treatment. Only 25% of patients with colonic lipoma develop symptoms, including bowel obstruction and intussusception.<sup>8</sup> Lipomas larger than 4 cm are considered giant and produce symptoms in 75% of cases.<sup>9,10</sup> In this case report, we present a case of a giant colonic lipoma causing abdominal pain, which was dropped out from the anus by performing a lavage with a garden hose.

## CASE REPORT

A 67-year old woman was referred to our gastroenterology department with a semisolid mass which was dropped out from the anus by making a rectal lavage with a garden hose (Figure 1a). There was a history of abdominal pain and constipation for two weeks but no history of alteration in bowel habits, hematochezia, and loss of appetite or weight. As in her history, she had decided to make a lavage to facilitate defecation by using a garden hose and, after the lavage, a mass was dropped out from the rectum within gaita. Detailed laboratory studies were within normal ranges. Colonoscopy performed in our gastroenterology department, and an erythematous erosive focus was seen at sigmoid colon. Pathological macroscopic examination of the lesion confirmed that it was measured 5.5x4.5x4 centimeters with an originated from adipose tissue, with ulcerative lesions on the overlying mucosa (Figure 1b, c). The mass had a 2 centimeters peduncle with a diameter of 0.2 millimeter. Microscopic examination of the specimen showed that

the lesion was composed of mature fat cells, focal ulceration, and necrosis of the overlying colonic mucosa, and the findings were consistent with the submucosal lipoma (Figure 2-5). Informed consent was taken from the patient.

## DISCUSSION

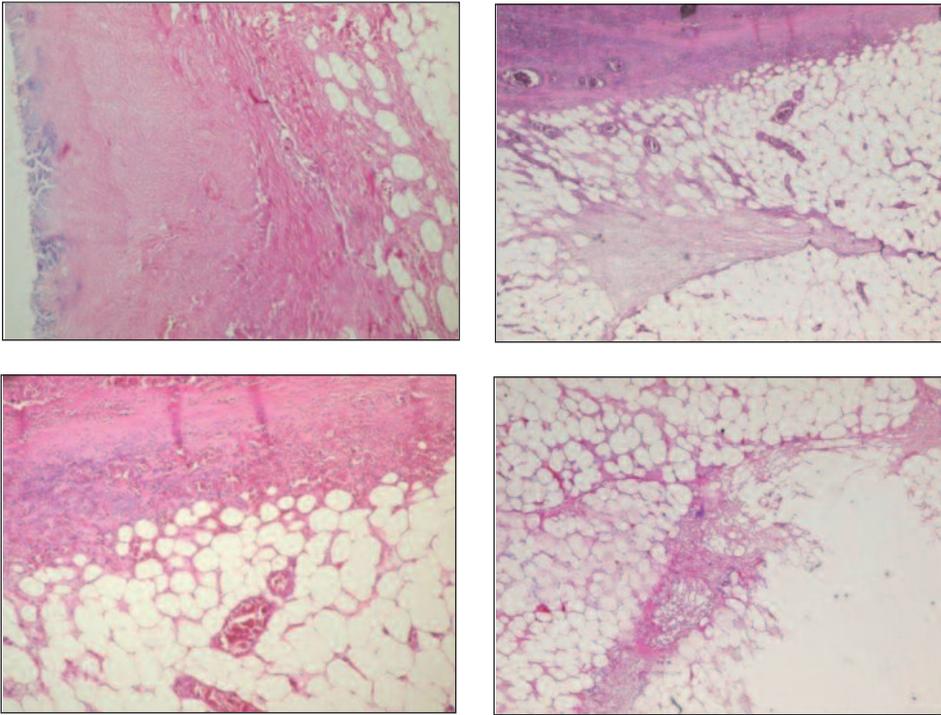
Lipoma of the colon is an uncommon tumor of the gastrointestinal tract, and belongs to the group of benign non-epithelial tumors. As reported at autopsy, the incidence of colonic lipoma ranges from 0.035 to 4.4%.<sup>11</sup> In general, colonic lipomas do not cause symptoms and, therefore, are usually detected incidentally during colonoscopy, surgery and autopsy. However, a minority of lipomas can cause symptoms when the lesion is large, especially for those with a diameter >2 cm.<sup>11-13</sup> To the best of our knowledge, colonic lipoma that was dropped out by patient manipulation, has not been previously reported.

The clinicopathologic features of symptomatic lipomas are reviewed in the previous literature.<sup>12,14,15</sup> Thus, we can conclude that the most common signs and symptoms include abdominal pain (42.4%), bleeding per rectum (54.5%) and alteration in bowel habits (24.2%). With respect to sex distribution, there is a female predominance (66.7%). The most common age is the fifth or sixth decades of life. As for its location, the most typical site for solitary colonic lipoma is the ascending colon (45.5%), whereas the lesion in our report was located in the sigmoid colon. Solitary lesion is usually found in most cases; by contrast, multiple lesions occur in 6.1% of cases.



**FIGURE 1a-c:** Macroscopic appearance of the mass.

(See color figure at <http://www.turkiyeklinikleri.com/journal/turkiye-klinikleri-journal-of-case-reports/1300-0284/tr-index.html>)



**FIGURE 2-5:** Microscopic slights from the different parts of the lipoma (HE, x100).

(See color figure at <http://www.turkiyeklinikleri.com/journal/turkiye-klinikleri-journal-of-case-reports/1300-0284/tr-index.html>)

Microscopically, colonic lipomas are usually located in the submucosa, and numerous fibrous intervals can be observed in adipose tissue, resulting in the lobulated appearance of lipoma. Furthermore, varying degrees of fat necrosis, granulation and ulceration may be found on the surface of relatively large lipomas.

With the widespread application of colonoscopy, small lesions are found incidentally, and their diagnosis and treatment are mainly dependent on endoscopy.<sup>11,12</sup> However, large colonic lipomas are often mistaken for more serious pathology, as a result of their rarity and variable presentation. Therefore, more attention should be paid to how to increase the rate of preoperative diagnosis. Clinical features are still important, especially for those large lesions. Our patient with an 5.5x4.5x4 cm lesion should have presented with the appearance of complete intestinal obstruction. However, to our surprise, she did not present as an emergency with significant symptoms. Several factors may have contributed to this phenomenon. One potential explanation is the slow growth rate of colonic

lipoma. Another, and perhaps more likely explanation is the long-standing obstruction caused by the lesion, which results in proximal colonic dilatation.

Although imaging findings may be less specific, they have still contributed to the preoperative diagnosis. For large colonic lipomas and acutely ill patients, CT and magnetic resonance imaging are the preferred methods because their imaging characteristics are relatively typical for adipose tissue, and they provide a rapid diagnosis.<sup>12,16</sup>

Since most lipomas are submucosal, colonoscopy can provide direct visualization and pathologic examination via biopsy forceps. Thus, preoperative diagnosis mainly depends on colonoscopy. Typical lipomas appear as smooth, spheroidal, slightly yellowish polyps of variable size, with or without a pedicle.<sup>14</sup> Although colonoscopy is reliable for the diagnosis of the usual type of lipoma, it is more difficult for diagnosis of those lesions with an atypical, callous or ulcerated shape. If the adipose tissue lies beneath

the normal or ulcerated mucosa, it is not likely to be diagnostic; furthermore, if a biopsy yields benign tissue, it is impossible to completely exclude the possibility of malignancy. The exact diagnosis still mainly relies on an intra- or postoperative pathology examination.

However, various views with regard to endoscopic removal of large lipomas have been reported. Some studies have demonstrated that removal of lipomas  $\geq 2$  cm in diameter is associated with a greater risk of perforation.<sup>17,18</sup> On the contrary, some authors have reported that large pedunculated and large sessile lesions can be removed without perforation.<sup>16,19</sup> Kim et al.<sup>14</sup> have performed endoscopic removal of lipoma

with a maximum diameter of 3.8 cm, assisted by injection of saline solution with or without epinephrine into the submucosa beneath the lesion, with no complications. Bar-Meir et al.<sup>19</sup> have described the safe endoscopic removal of a very large 5-cm lipoma. In addition, the feasibility of slow mechanical transection of a large colonic lipoma (4 cm) with an endoloop ligation technique has been demonstrated by Raju and Gomez,<sup>17</sup> whereas this novel technique may require application of additional loops several weeks later. The removal of colonic lipoma with the assistance of laparoscopy has also been reported.<sup>20</sup> In fact, our case must encourage the gastroenterologists for endoscopic removal.

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