

# Rare Colonic Lipoma Revealed Through CT Imaging: A Case Report

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## Abstract

Colonic lipomas are rare, benign tumors that are often asymptomatic but can present with vague gastrointestinal symptoms, such as abdominal pain or altered bowel movements. A 44-year-old male presented with left-sided abdominal pain and intermittent loose stools, with an otherwise unremarkable physical examination. Computed tomography (CT) Enteroclysis revealed a well-defined, rounded, sessile intraluminal mass with fat attenuation (Hounsfield units [HU] -40 to -20) and mild peripheral wall enhancement, located in the descending colon and arising from its posterolateral wall. Although these tumors are mostly benign, they can occasionally cause complications such as intussusception, obstruction, or, in rare cases, perforation. Treatment options include colonoscopic resection for pedunculated and accessible lesions, while larger or symptomatic sessile lesions require surgical intervention. The clinical relevance of recognizing colonic lipomas lies in distinguishing them from malignant tumors, such as colorectal cancer. Their characteristic imaging features, including fat attenuation, enable accurate diagnosis and help avoid unnecessary invasive procedures. Timely recognition of colonic lipomas ensures appropriate management and reduces the risk of misdiagnosis. This case report highlights the clinical and radiological findings of a colonic lipoma.

**Keywords:** Colonic lipoma, CT scans, Benign tumors, Asymptomatic

**Abbreviations:** CT: Computed tomography, HU: Hounsfield units

## Introduction

Colonic lipomas are rare benign tumors composed of adipose tissue, often detected incidentally during imaging for other gastrointestinal symptoms (1). While typically asymptomatic, they can present with vague symptoms such as abdominal pain, constipation, vomiting, or bleeding (2). Diagnosis is commonly made via colonoscopy, though CT imaging provides valuable insights into their size, location, and characteristics (3). This case report highlights the CT imaging features of a rare colonic lipoma, emphasizing the role of advanced imaging in distinguishing these lesions from other abdominal masses. Recognizing these features is crucial for accurate diagnosis and management.

## Case Report

A 44-year-old male presented with vague left-sided abdominal pain and intermittent loose stools. He denied constipation, diarrhea, hematochezia, or melena. Physical examination was unremarkable. Laboratory studies, including complete blood count and blood biochemistry, were within normal limits, and the fecal occult blood test was negative. Upper gastrointestinal endoscopy was normal. Computed tomography (CT) Enteroclysis revealed a well-defined, rounded 3.1 x 3.3 cm sessile intraluminal mass with fat attenuation (Hounsfield units

[HU] -40 to -20) and mild peripheral wall enhancement in the descending colon, arising from its posterolateral wall (Figure 1a and 1b). The core of the lesion showed no enhancement. These findings were consistent with a sessile colonic lipoma. Laparoscopic resection was performed due to the sessile nature of the lipoma, and histopathological examination confirmed the diagnosis.

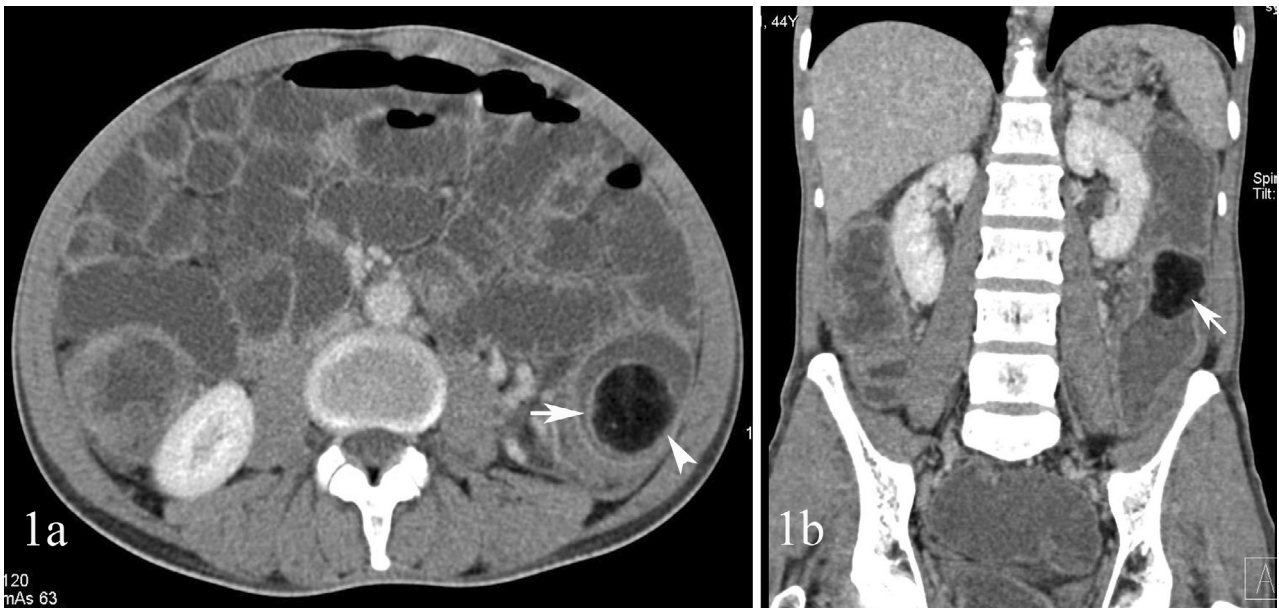
## Discussion

Colonic lipomas are relatively rare, with an incidence of approximately 0.03% to 0.5% in the general population, and they are most commonly found in adults aged 40 to 60 years, with a slight female predilection (female-to-male ratio of 1.3:1) (1, 2). While most lipomas are asymptomatic, they may present with symptoms such as abdominal pain, distension, gastrointestinal bleeding,

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**Figure 1A:** Axial section of the CT enteroclysis showing well defined rounded fat attenuation (HU value -40 to -20) mass lesion (arrow) appears to be arising from the posterolateral wall of descending colon (arrow head). **Figure 2b:** Coronal reformatted image showing lipoma in the descending colon (arrow). The findings are consistent with colonic lipoma.

vomiting, or constipation especially in the case of larger or giant lipomas (4) (Table 1).

While colonoscopy is crucial for direct visualization of colonic lipomas, CT imaging is essential for visualizing colonic lipomas. Colonic lipomas on CT scans typically present as well-defined, homogeneous masses with fat density ranging from -50 to -100 Hounsfield units, similar to normal adipose tissue. These lipomas are usually non-enhancing after contrast administration. They may be round or oval, and large lipomas may exert mass effects, such as displacement of adjacent bowel loops, without significant inflammation. Rarely, lipomas show calcifications. The fat-density and non-enhancing nature distinguish them from malignant tumors, which usually enhance post-contrast. Larger lipomas, typically greater than 3 cm, may cause symptoms like obstruction or bleeding (2-5) (Table 1).

They are most commonly located in the right colon (cecum and ascending colon). The descending colon, as seen in this case, is a less common location, which may contribute to diagnostic challenges. However, accurate imaging identification can help avoid unnecessary procedures, such as biopsy, which is rarely needed unless malignancy is suspected (4).

Pedunculated colonic lipomas appear as fat-density masses with a narrow stalk attaching to the colonic wall, while sessile colonic lipomas are broad-based, fat-density masses directly arising from the colonic mucosa, typically without a stalk on CT scans (2,3-5).

The treatment of colonic lipomas depends on the lesion's size, location, and morphology. Pedunculated lipomas are typically managed with colonoscopic resection, a minimally invasive approach. Sessile lipomas,

**Table 1:** Common clinical features and CT scan findings of colonic lipomas (4,5).

Clinical Features	CT Scan Findings
<ul style="list-style-type: none"> <li>Abdominal discomfort or pain</li> <li>Constipation</li> <li>Vomiting</li> <li>Rectal blood loss</li> <li>Abdominal distension</li> <li>Diarrhea</li> <li>Hematochezia</li> <li>Weight loss</li> <li>Nausea</li> <li>Intestinal obstruction (rarely)</li> </ul>	<ul style="list-style-type: none"> <li>Well-circumscribed, round or oval mass</li> <li>Fat density lesion, homogeneous in appearance (similar to surrounding adipose tissue) ranging from - 50 to -100 Hounsfield units</li> <li>Mild peripheral enhancement without central necrosis</li> <li>Located in the submucosal layer of the colon often surrounded by normal bowel wall</li> <li>No significant invasion of surrounding structures</li> <li>May have a thin, well-defined capsule or smooth margins around the lesion</li> </ul>

particularly larger ones, may require surgical intervention to ensure complete removal and prevent complications like obstruction or intussusception. Surgical options include laparoscopic or open resection, based on the lesion's characteristics and patient factors (5).

### Conclusion

CT imaging is vital for diagnosing colonic lipomas and differentiating them from other abdominal masses. The characteristic fat attenuation and mild peripheral enhancement observed on CT scans, in this case, are key to distinguishing lipomas from malignancies. Understanding these features ensures appropriate management and avoids unnecessary interventions.

## Declarations

**Consent:** Written informed consent was obtained from the patient for publication and any accompanying images.

## Competing Interests

The authors declare no competing interests.

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