# Case Report

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# Ileocecal lipomatosis presenting as intermittent intestinal obstruction and hematochezia: case report with literature review

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## **ABSTRACT**

Lipomatosis of the ileocecal valve is defined as the submucosal infiltration or accumulation of adipose tissue in the ileocecal region, usually resulting in non-specific gastrointestinal symptoms like abdominal distension, abdominal discomfort, vomiting, alternating diarrhea and constipation and occasionally bleeding per rectum. Lipomas are the most common benign mesenchymal tumors of the gastrointestinal tract. Distribution of alimentary lipomas demonstrates a predilection for the colon, but they may originate anywhere in the gastrointestinal tract. Here, we are describing the case of an elderly male who presented with rectal bleeding. Both colonoscopy and computed tomography of the abdomen and pelvis confirmed the presence of a mass near the ileocecal valve. Because of bleeding, the patient required right hemicolectomy to resect the lesion. Both macroscopic and microscopic pathology were consistent with lipoma at the ileocecal valve. Previous cases of ileocecal valve lipomas have been reported in the literature, with the majority presenting as intussusception or volvulus. We present a rare case of an ileocecal valve lipoma with superficial ulceration presenting as lower gastrointestinal bleeding that was treated successfully with resection.

Keywords: Hematochezia, Ileocecal valve, Lipoma

## INTRODUCTION

Lipomatosis of the ileocecal valve is defined as the submucosal infiltration or accumulation of adipose tissue in the ileocecal region, usually resulting in non-specific gastrointestinal symptoms like abdominal distension, abdominal discomfort, vomiting, alternating diarrhea and constipation and occasionally bleeding per rectum. Lipomas are the most common benign mesenchymal tumors of the gastrointestinal tract. Distribution of alimentary lipomas demonstrates a predilection for the colon, but they may originate anywhere in the gastrointestinal tract. <sup>2,3</sup> Often asymptomatic and detected incidentally at the time of colonoscopy or surgery,

lipomas more than 2 cm in diameter may cause nonspecific gastrointestinal symptoms, including change in bowel habits, abdominal pain, or rectal bleeding.<sup>4</sup> Diagnosis of gastrointestinal lipomas may involve barium enema, colonoscopy, or computed tomography (CT). A wide range of operative and nonoperative techniques have been used for resection.

Few cases of lipoma have been reported till date with origin at the ileocecal region, the majority of which have presented as intussusception or volvulus.<sup>5</sup> We describe a rare case of an ulcerated ileocecal valve lipoma associated with lower gastrointestinal bleeding that was significant enough to require urgent surgical intervention.

#### **CASE REPORT**

A 70-year old man with a history of diabetes mellitus, hypertension, presented with five days complaints of colicky abdominal pain, distension, constipation and bilious vomiting, and 2 episodes of passing fresh blood per rectum, moderate quantity. His past medical history included an appendicectomy during childhood.

On examination, patient was afebrile and hemodynamically stable. His abdomen was distended with localized tenderness in the right iliac fossa and no palpable abdominal masses; bowel sounds were sluggish. Digital rectal examination showed blood staining and no mass was palpable.



Figure 1: Erect X-ray showing dilated small bowel loops.

Initial laboratory blood tests were normal. Plain abdominal X-ray showed dilated small bowel loops (Figure 1) with no evidence of free intraperitoneal air. Outpatient colonoscopy performed at that time revealed a 4 cm cecal mass with mucosal necrosis at the ileocecal valve. Contrast Enhanced Computed Tomography scan of abdomen and pelvis was performed after checking the renal function test which revealed of a 4 cm fatty density structure within the bowel lumen at the ileocecal region (Figure 2) with superficial ulceration and separate from the mesentery. The decision was made to undertake an urgent exploratory laparotomy.

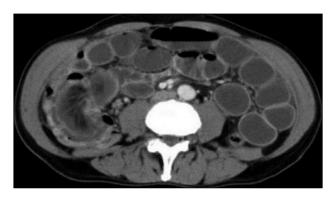


Figure 2: CECT abdomen and pelvis showing 4 cm fatty density structure within the bowel lumen at the ileocecal region.

At laparotomy, thickening of ileocecal region was found without any peritoneal deposits or liver involvement for which a right hemicolectomy with ileo colic anastomosis was performed (Figure 3).



Figure 3: Specimen showing thickening of ileocecal valve with submucosal lipoma.

The valve orifice was narrow, and a finger could be inserted through it only with difficulty. The colon showed marked dilatation, chiefly in the transverse portion, with thinning of the wall, but was not otherwise remarkable. The appendices epiploicae were prominent, and the mesentery contained a large amount of evenly distributed fat. The patient had an uneventful postoperative recovery.

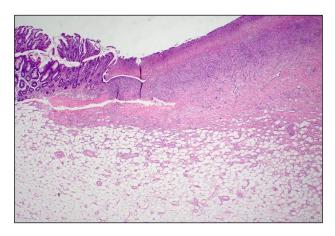


Figure 4: Histopathology showing submucosal lipoma with superficial ulceration.

The histopathology report confirmed a 4cms submucosal lipoma in the terminal ileum with superficial ulceration and no necrosis (Figure 4). No lymph nodes were identified. There was no evidence of dysplasia or malignancy. The patient regained bowel function by postoperative day 4 and was discharged the following day.

## **DISCUSSION**

Gastrointestinal lipomas are benign lesions arising from the mature fat cells within the intestinal submucosa with the first case reported by Bauer in 1757.6 With a reported incidence of 0.2% to 4.4%, lipomas are the third most common benign colonic neoplasm following hyperplastic and adenomatous polyps. Lipomas are found most commonly in the colon, with the highest frequency found in the ascending colon and cecum followed by the transverse part, descending colon, sigmoid, and least often the anorectum. Despite the propensity for colonic distribution, lipomas can occur anywhere along the alimentary tract, including the hypopharynx, stomach, small bowel, and esophagus.<sup>7</sup> When confined to the colon, 90% of these lesions are localized to the submucosa; however, a few reports have suggested an origin in the subserosal plane. These tumors are more prevalent in women and are typically discovered during 40 to 70 years of life.

The etiology of this condition is not clearly explained. Some writers simply state that the condition occurs in obese individuals or in individuals with disturbances of lipid metabolism. The condition is usually asymptomatic, or the symptoms may be so insignificant that they are overlooked.8 Few patients present with longstanding gastrointestinal symptoms. Colicky abdominal pain and flatulence are frequently encountered recurrent symptoms. Severe abdominal distension, nausea and vomiting may occur as evidence of partial mechanical obstruction of the lumen by the lesion. Complete intestinal obstruction usually occurs only after intussusception which is then manifested by rectal bleeding and other symptoms of complete intestinal obstruction will be present, as well as severe localized tenderness in the right lower quadrant, with or without a palpable mass.<sup>9</sup> It is important to note that intestinal hemorrhage may occasionally be present without any symptoms of intestinal obstruction and may be due only to lipomatosis of the ileocecal valve.

A palpable mass in the right lower quadrant is not a frequent finding unless intussusception is present. During an exploratory laparotomy, the surgeon can easily overlook an ileocecal valve that is only moderately enlarged. However, on palpation through the cecal wall, when the lesion is suspected, the ileocecal valve has a characteristically soft, lobulated feeling. A barium enema usually reveals a radiolucent tumour projecting into the cecum.<sup>10</sup> Different radiologists have described the radiographic appearance of the valve in the following ways: an "open umbrella", a "rosette en face", and resembling the Greek letter epsilon. Grossly, the region of the ileocecal valve is enlarged and the mesentery is infiltrated with a large amount of fat. Within the cecum, protruding from the ileum, there can be seen a huge, pale orange or yellow mass, with the shape of a mushroom, and a small central lumen.11

Microscopically, the characteristic finding is adipose tissue infiltrating the submucosal area between the mucosa and the muscularis mucosae or between the muscularis mucosae and the circular muscle of the ileocecal valve. Most of the cases described in the literature have had surgical intervention, the usual procedure being a right hemicolectomy with an end-toend enterocolostomy. Simple excision of the ileocecal valve has been performed with very good results. An asymptomatic or minimally symptomatic demonstrated radiologically should be followed closely, and if symptoms appear operation should be considered.<sup>12</sup> One should always bear in mind that lipomatosis of the ileocecal valve may be a cause of unexplained gastrointestinal bleeding; and because this lesion is usually difficult to define by simple palpation and may be otherwise asymptomatic, careful examination of the ileocecal area may provide the diagnosis. The prognosis usually is excellent. It is worthy of note that an occasional patient may have or may develop lipomatosis in another region of the gastrointestinal tract later.

#### **CONCLUSION**

In cases with unexplained gastrointestinal hemorrhage, recurrent incomplete intestinal obstruction, or vague, ill-defined abdominal symptoms, the possibility of lipomatosis of the ileocecal valve should be considered. The barium enema is one of the best methods of making the diagnosis of this lesion. When performing an operation with this diagnosis in mind, one should remember that the ileocecal region may appear normal by palpation, and only a cecotomy can rule out lipomatosis with certainty.

There are three types of lipomatosis of the ileocecal valve which can be distinguished clinically: (1) those which are completely asymptomatic; (2) those with low-grade, long-standing gastrointestinal symptoms; (3) those with severe gastrointestinal symptoms due to acute or recurrent intestinal obstruction. Cases with moderately severe symptoms and the complications such as intestinal obstruction require surgical treatment. The three possible surgical procedures which can be considered are: (1) local excision of the lipomatous ileocecal valve; (2) bypass of the lesion, with a side-to side ileo-colostomy; (3) extensive resection of the terminal ileum, a right hemicolectomy, and an end to- end ileo-colostomy. Those cases with only mild symptoms may be treated medically. In patients with unexplained gastrointestinal bleeding, lipomatosis of the ileocecal valve should be considered as a possible cause.

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