Gastrointestinal Lipomatosis

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Citation

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Abstract

Diffuse lipomatous involvement of the gastrointestinal (GI) tract is a rare condition with less than a dozen reported cases. Diagnosis of the uncomplicated case by computed tomography (CT) is simple and precludes the need for more invasive studies. We report a rare case of an asymptomatic male with lipomatosis involving the stomach and small and large bowel.

INTRODUCTION

Diffuse lipomatous involvement of the gastrointestinal (GI) tract is a rare condition with less than a dozen reported cases. Diagnosis of the uncomplicated case by computed tomography (CT) is simple and precludes the need for more invasive studies. We report a rare case of an asymptomatic male with lipomatosis involving the stomach and small and large bowel.

CASE REPORT

An asymptomatic 55 year old Caucasian male of average body mass index and a history of colon cancer resection in 2003 presented for a routine follow up CT scan of the abdomen and pelvis in November of 2004. The patient had an upper GI series and small bowel follow-through in September of 2003 showing multiple well-defined filling defects in the stomach and small bowel (Figure 1). Tissue samples were not obtained subsequent to the exam. Intravenous contrast-enhanced CT scan (Figure 1) demonstrated multiple well-defined mural lipomas of varying sizes in the stomach, duodenum, jejunum, ileum, and ascending colon (Table 1) without evidence of a bowel obstruction or intussusception.

Figure 1: Gastrointestinal lipomatosis. (A) Barium study shows multiple well-defined filling defects in the distal stomach. (B) Corresponding slice of contrast-enhanced CT demonstrates a well-defined, lobulated fatty lesion in the antrum of the stomach. (C) Small bowel follow-through shows well-defined filling defects in the ileum. (D) CT demonstrates additional fatty lesions in the duodenum and (E) ascending colon.

Figure 1

Figure 1a

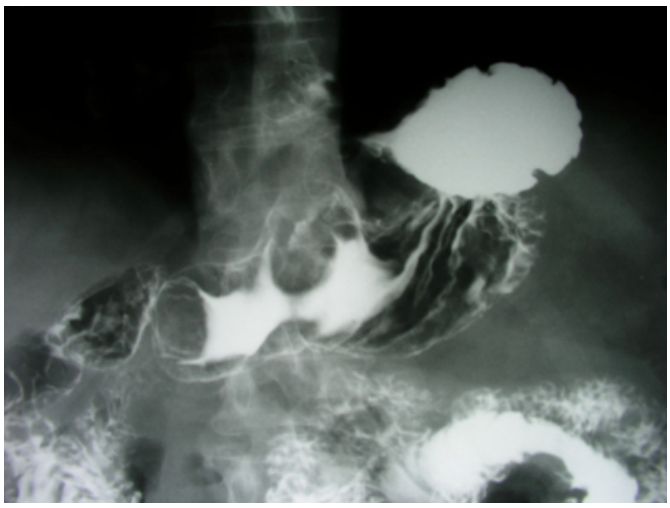

Figure 2

Figure 1b

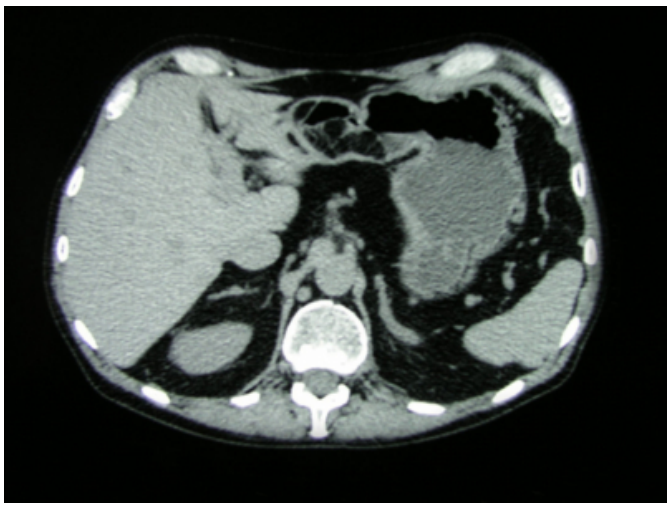

Figure 3

Figure 1c

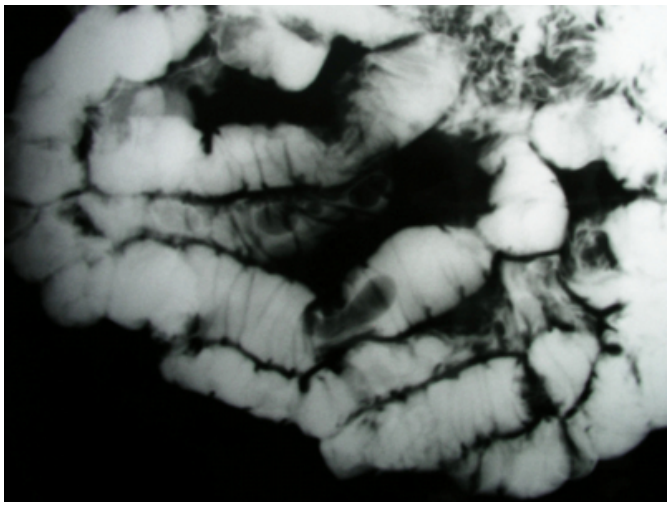

Figure 4

Figure 1d

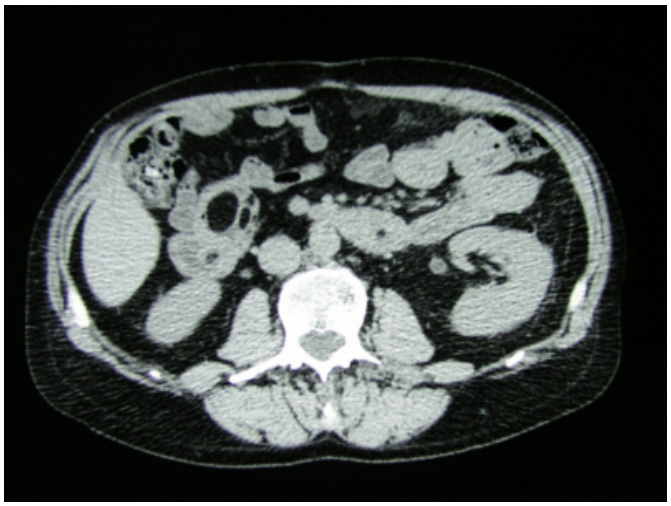

Figure 5

Figure 1e

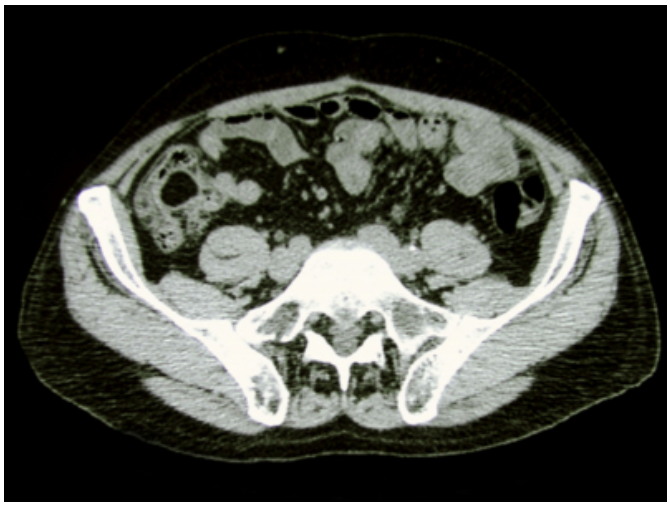

Figure 6

Table 1: Number and largest sizes of gastrointestinal lipomas on CT, categorized by location.

	Number of Lesions	Largest Size
Stomach	3	6 x 4 x 6 cm
Duodenum	>10	2.5 x 3 x 4 cm
Jejunum/Ileum	>10	2 x 1 x 3.5 cm
Ascending Colon	9	2 x 2 x 2.5 cm

The liver attenuation and amount of mesenteric and retroperitoneal fat were within normal limits. Suture material was noted in the distal sigmoid colon related to a sigmoidectomy for cancer.

DISCUSSION

Diffuse lipomatous involvement of the GI tract is a rare condition with less than a dozen reported cases [1,2]. Case reports of lipomas in isolated or scattered segments are more frequently encountered in the literature; the ileum is the most commonly affected site [1,2,3,4,5]. The etiology of GI lipomatosis, regardless of the pattern of involvement, is currently unknown [3]. It affects both genders equally and typically occurs after the fourth decade of life. Fatty lesions characteristic of this condition are usually submucosal in location but may extend to the mesenteric or serosal fat. Gross specimens appear monomorphic and hamartomatous,

and mature adult type fat cells are invariably present on histology [1,2, 4].

Fluoroscopy with contrast is the traditionally accepted primary diagnostic study. However, CT has become recognized as an appropriate alternative due to the unambiguous imaging findings and the ease in which the study is obtained. CT demonstrates well-defined, homogeneous fatty lesions in the gastrointestinal wall [4]. Once diagnosed by CT, more invasive studies are unnecessary in the absence of symptoms. The clinical presentation can be variable, as associations with diverticulosis, volvulus, intussusception, bleeding, and bowel obstruction have been described [1,2,3,4, 6]. Because of the potential complications, awareness of GI lipomatosis in a patient can be clinically useful for the treating physician.

CONCLUSION

We have presented a rare and diffuse form of GI lipomatosis, initially suspected on fluoroscopic exam and later confirmed by a routine follow-up CT scan. Efforts to obtain tissue samples in the interim were not pursued and probably unwarranted given the patient's lack of symptoms.

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