

Intestinal lipomatosis: Report of two cases

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Abstract

Intestinal lipomatosis is a proliferation of histologically normal fatty tissue in the gastrointestinal tract. It is characterized benign, asymptomatic, slow growing tumors with sub-epithelial origins. On rare occasions, they become symptomatic and can be associated with major complications such as gastrointestinal obstructions and bleeding. This rare pathology has been reported several times in the literature but not in Colombia prior to this study. We present two cases that were evaluated and followed up at the Unión de Cirujanos SAS and the University of Caldas in Manizales, Colombia.

The first is a 70-year-old man who had a history of colic associated with bloating and postprandial diarrhea. The initial upper digestive endoscopy reported multiple yellowish, submucosal lesions in the duodenum. His histological diagnosis was lipomas. In this case, an endoscopic video capsule determined the distribution and characteristics of the lesions throughout the gastrointestinal tract and assessed complications.

The second is an 81-year-old man who entered the institution due to lipothymia and rectal bleeding. Upper endoscopy and colonoscopy were normal, but a videocapsule endoscopy showed lipomatous lesions one of which was bleeding and had adjacent angiodysplasia. He was treated with double balloon enteroscopy and Argon plasma therapy.

Keywords

Lipomatosis, gastrointestinal, gastrointestinal diseases, endoscopy, double balloon enteroscopy, colonoscopy.

INTRODUCTION

The term intestinal lipomatosis is used to describe a proliferation of histologically normal fatty tissue anywhere in the gastrointestinal tract. (1, 2) Lesions are benign, slow-growing tumors of subepithelial origin. Most are asymptomatic and are incidentally diagnosed during endoscopy. Nevertheless, these lesions occasionally lead to symptoms such as abdominal pain, bloating, constipation or diarrhea and can result in complications such as gastrointestinal bleeding, intussusception or intestinal obstruction. (1)

Most commonly located in the colon, ileum and jejunum, they can also be located in the second portion of the

duodenum. (3) Intestinal lipomatosis is rare: its incidence in autopsies is 0.04-4.5%, and there are very few reports in the medical literature and none from Colombia. (4)

We present two cases diagnoses in our department including images and endoscopic characteristics. We also discuss the usefulness of double balloon enteroscopy for managing bleeding from one of them.

CASE 1

This patient was a 70-year-old man with a medical history of prostate cancer which had been managed surgically without complications. He had a history of several years

of occasional colicky abdominal pain, associated with episodes of bloating and postprandial diarrhea. In addition, he had developed epigastric pain and heartburn and had been treated with diet, trimebutine and a proton pump inhibitor.

The patient brought a contrasted abdominal computed tomography (CT), serial stool tests, and blood tests which had been performed elsewhere. All results were normal, and he had no intestinal parasites.

Upper digestive endoscopy and a colonoscopy were ordered to study the abdominal pain. Colonoscopy identified

grade II internal hemorrhoids while upper digestive endoscopy reported multiple yellowish, submucosal inclusions measuring approximately 3 mm each (**Figure 1**). They were located in the duodenum up to the angle of Treitz.

In addition, a biopsy showed mature adipose tissue cells. An endoscopic video capsule was used to more precisely determine the extent of the lesions. It showed multiple yellowish lesions throughout the small intestine up to the ileocecal valve. Their sizes varied, and they appeared to be benign with characteristics similar to those reported by upper digestive endoscopy (**Figure 2**).

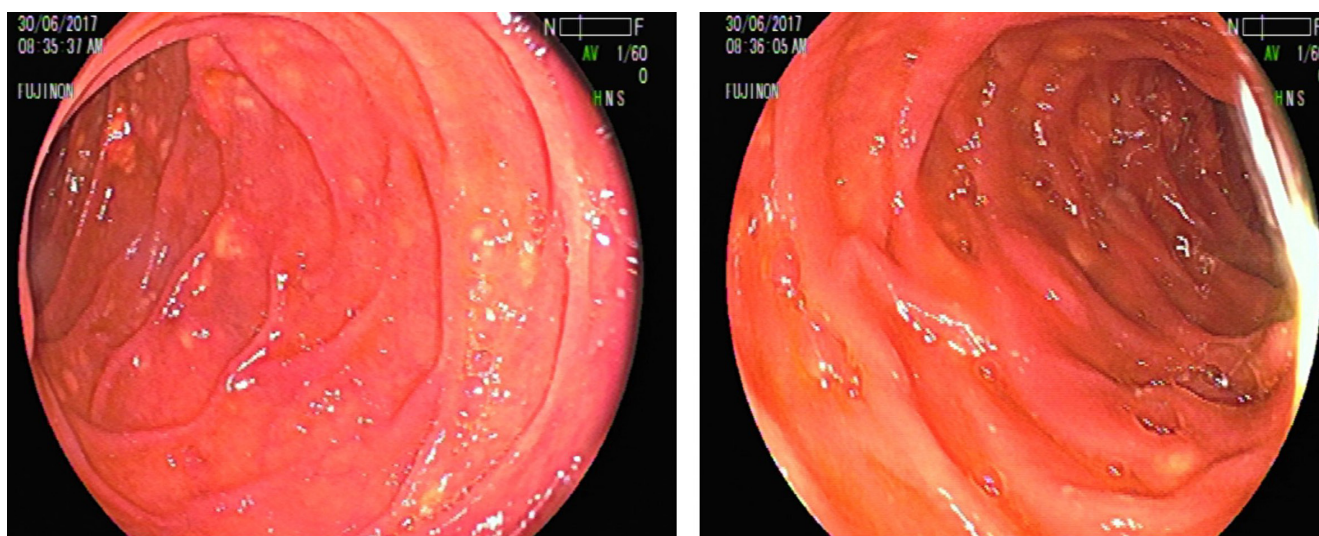


Figure 1. Upper digestive endoscopy images showing multiple yellowish, submucosal inclusions measuring approximately 3 mm each and located in the duodenum.

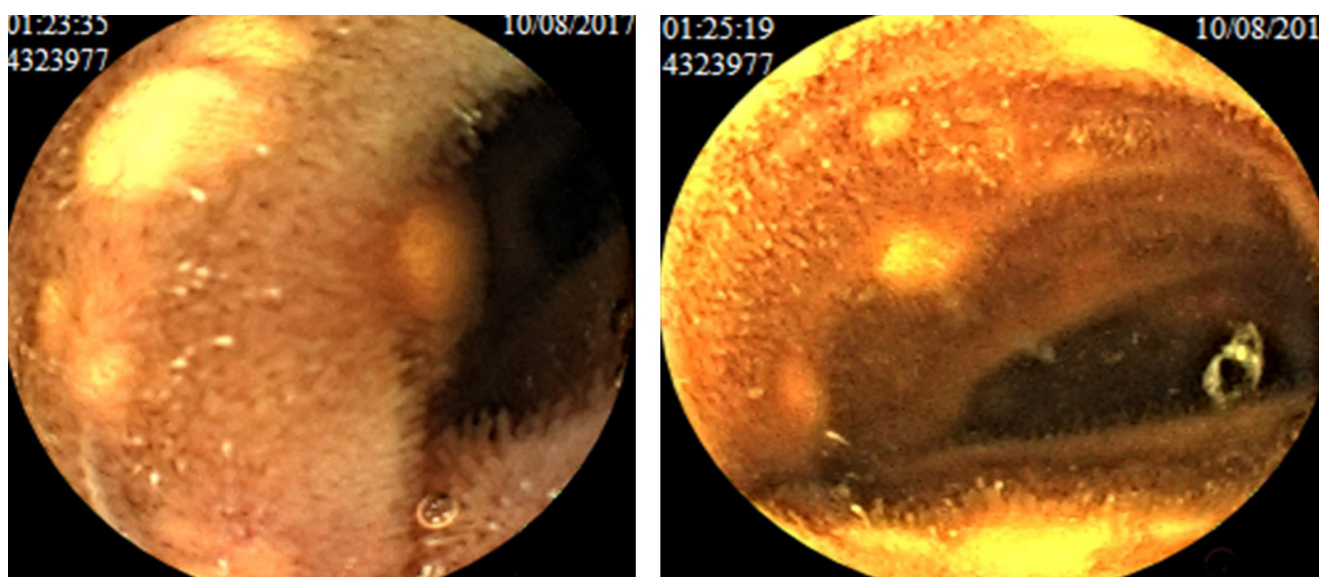


Figure 2. Endoscopic video capsule images show multiple benign appearing, yellowish, rounded lesions of varying sizes in the small intestine.

CASE 2

This patient was an 81-year-old man from Anserma, Caldas who had been admitted to the emergency service due to an episode of syncope accompanied by tonic-clonic seizures. This was the only such episode. The postictal period was brief, and the patient completely recovered consciousness. During the systems review, occasional scanty rectal bleeding was reported.

The patient explained that he had a history of coronary artery disease and that a stent had been placed nine years earlier. He had chronic obstructive pulmonary disease (COPD) and had been a heavy smoker for 50 years. He also had Alzheimer's disease, prostate cancer which was under conservative management, and chronic anemia attributed to losses in the gastrointestinal tract caused by diverticulosis and hemorrhoids.

He said that there was a family history of gastrointestinal pathology and provided records of two previous colonoscopies in which a diverticular disease of the sigmoid colon and grade II internal hemorrhoids were reported.

At the time of physical examination, the patient had pale skin, hypotension, tachycardia, and stigmata of fresh bleeding on digital rectal examination. His hemoglobin level was 4.5, and his mean corpuscular hemoglobin was 27.7. A brain scan was normal.

During hospitalization, the patient presented multiple episodes of hypotension and chest pain and three episodes of abundant melena that required transfusion of 7 units of packed red blood cells. Upper digestive endoscopy and total colonoscopy were performed but did not find the source of bleeding.

Consequently, an endoscopic video capsule was used. It found multiple yellowish lesions some of which were flat while others were elevated. They extended from the upper jejunum to the ileum where three were found. A lesion found in the middle jejunum may have been the cause of the bleeding, but several angiodysplasias were also found. These findings were compatible with intestinal lipomatosis and vascular malformations.

The patient underwent double balloon enteroscopy that showed the lesions found by video capsule (**Figure 3**). Argon Plasma Coagulation (APC) was used to cauterize the ulcerated lipomatous lesion and angiodysplasia. The patient evolved satisfactorily and was discharged.

DISCUSSION

The term intestinal lipomatosis was first described by Hellstorm in 1906. It refers to a proliferation of benign lipomas in any part of the gastrointestinal tract. (2) Endoscopic findings include multiple yellowish, round or oval, sessile or pedunculated, submucosal masses which protrude into the intestinal lumen. (5) The mucosa that generally covers these masses is normal. However, they sometimes ulcerate.

An abdominal CT scan will show them as well-defined rounded or oval lesions with a homogeneous fat density of -50 to -100 Hounsfield units. This study is mostly used to assess complications such as intestinal obstructions or intussusception. (2, 5)

A histological study will show normal mature fatty tissue usually located in the submucosa. (2) In the first case, the diagnosis was made with upper digestive endoscopy and a biopsy, but it was complemented with an endoscopic video

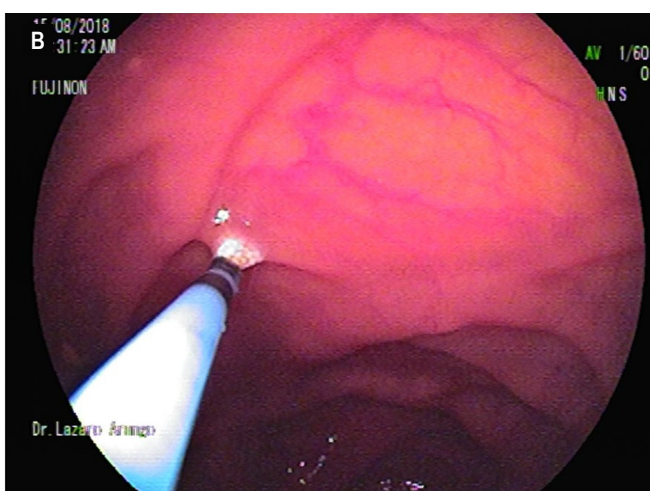
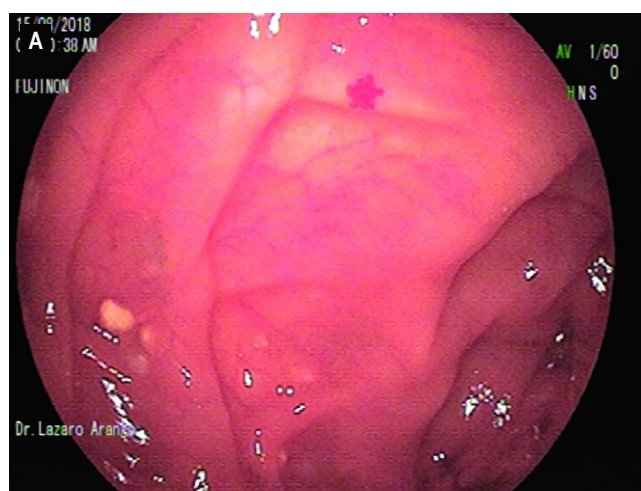


Figure 3. A. Lipomatous lesions of the jejunum and angiodysplasia. **B.** Argon plasma therapy of ulcerated lipomatous lesion and angiodysplasia. Images taken by Dr. Lázaro Arango.

capsule examination. The second case required the endoscopic video capsule for diagnosis and double balloon enteroscopy for management of bleeding.

CONCLUSION

Intestinal lipomatosis is a rare, generally benign and asymptomatic disease. Most cases only require clinical monitoring. However, significant complications such as bleeding, intussusception or intestinal obstruction can develop and may require management with invasive endoscopic or surgical procedures.

Most often, this diagnosis is established by upper digestive endoscopy, colonoscopy and abdominal tomography.

This article highlights the use of endoscopic video capsules as an effective and safe method to explore the entire gastrointestinal tract in patients with intestinal lipomatosis. This method may be indicated for characterizing lesions and determining their extension even in patients without acute complications.

Similarly, we would like to emphasize the importance of double balloon enteroscopy. Making this procedure available in services that handle urgent and elective gastrointestinal patients is very important for complementary diagnosis and especially for appropriate management of complications such as those that occurred in the second case described in which argon therapy of possible bleeding sites was carried out successfully.

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