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CASE REPORT: COLON LIPOMA: A RARE CASE OF INTUSSUSCEPTION

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Abstract: Intussusception caused by colon lipomas consists of a primary disease of the digestive tract, which is closely related to lipoma's size. By definition lipomas are benign tumors from adipocyte cells located in the intestinal wall. They are usually asymptomatic and accidentally diagnosed. The objective of this report was to study a rare case of transverse colon lipoma that led to an intussusception, thus counting on a case report that sought to exemplify the clinical-epidemiological aspects and the findings of the imaging diagnoses, besides the proposals correlated with the researched literature.

Keywords: lipoma, transverse colon, intussusception.

INTRODUCTION

Intussusception occurs due to the invagination of an intestinal loop in the distal portion of the same intestinal segment¹. It provides a symptomatic intestinal obstruction in 1% of adults, and in 17% of the cases the presentation is a collo-colonic intussusception¹. Usually an injury or irritant present in the wall or intestinal lumen, causes altered peristalsis leading to invagination and intussusception². The etiology of this condition is diverse, and may have benign, malignant or iatrogenic origin². In adults there is an identifiable etiology in 90% of cases².

Intussusceptions and intestinal obstructions, caused by intraluminal lipomas, are related proportionally to lipoma's size greater than 2 cm¹. Colon lipomas are generally more prevalent in females than males, between the fifth and sixth decade of life^{3,4}. In 60% to 70% of the cases, they are small and involve mainly cecum and ascending colon^{3,4}. They are classified as benign tumors originating from adipocytes within the intestinal wall, with an incidence of 0.2 to 4%^{3,4}. Most colon lipomas present as well-defined solitary lesions with soft consistency, spherical shape, smooth

surface and yellowish coloration³. However, 10% to 20% of cases can present as multiple lesions⁴. They are composed of adipose connective tissue and surrounded by a fibrotic tissue capsule⁵. The most common type is submucosal lipoma (90%) with sessile or pedicled appearance, and in other cases (10%) it may occur in the subserosa^{3,4}. They can vary in size, ranging from millimeters (mm) up to 30 cm³. In addition, they may grow towards intestinal lumen or peritoneal cavity⁶. But rarely become malignant^{4,6}. They are usually asymptomatic and end up being detected incidentally during endoscopic or radiological exams, surgeries or autopsies^{4,6}. The size of lipomas is directly related to their clinical presentations⁴. Those with more than 4 cm are symptomatic in 75% of the cases and lead to nonspecific abdominal manifestations, such as colicky diffuse abdominal pain, palpable tumor, weight loss, constipation and intestinal obstruction^{1,7,8}. In some cases, they can cause bleeding and chronic anemia⁹.

Delay in intussusception's diagnosis may culminate in intestinal ischemia, perforation and peritonitis¹⁰. Thus, lipoma's diagnosis becomes important, and imaging tests can help, but mostly findings are non-specific¹¹. Colonoscopy is one of the main methods used, and lipomas are usually visualized as yellowish, pedicle or broad-based polyps^{4,7,9,11}. However, common finds are: the cushion sign, tent sign and fat sign^{4,7,9,11}. With this, we can infer that colonoscopy is useful only in classic lipomas's cases, and in the postoperative period definitive diagnosis is necessary¹¹. Computed tomography (CT) scan is the best diagnostic image exam, followed by ultrasonography (USG), in which both reveal a lesion with target characteristic¹⁰. Magnetic resonance imaging (MRI) reveals an adenomatous polyp with adipose tissue and fat suppression^{11,12}. The barium enema can demonstrate filling failure signs with lobulated lesion, radiolucency and cons-

triction-contusion^{4,11}. In the differential diagnosis we must consider: leiomyomas, hematomas, hemangiomas, gastrointestinal stromal tumors (GIST) and a variety of sarcomas¹³. Treatment consists of partial colectomy, and its indications are: symptomatic lipoma with obstruction or bleeding, size larger than 2 cm, or mimicking malignancy⁷. In cases that lipoma is smaller than 2 cm, ambulatory follow-up can be performed⁴.

CASE REPORT

ANAMNESIS

ACL, a 77-year-old female patient, sought a private hospital emergency service located in the city of Rio de Janeiro, with one week of colicky abdominal pain, with an intensity of 7 on a 0 to 10 using the Visual Analog Scale (EVA), associated with diarrhea and abdominal distension. She reported that in previous week had already sought another emergency service near by her residence with the same complaints and after medical evaluation was diagnosed with acute gastroenteritis, being prescribed: scopolamine, simethicone and metronidazole for home treatment. The abdominal pain presented little improvement, however diarrhea and abdominal distension persisted, making her go to emergency again. In the previous pathological history, the patient reported that she had systemic arterial hypertension, non-insulin dependent diabetes mellitus, dyslipidemia and hypothyroidism, appendectomy 60 years ago, total hysterectomy 40 years ago, cholecystectomy 7 years ago, and acute myocardial infarction 4 years ago. She denied allergies and blood transfusions.

PHYSICAL EXAM

At the physical examination, she was lucid and oriented in time and space, hypocorated + / 4 +, hypohydrated + / 4 +, anicteric and acyanotic, vital signs within the parameters of normality. Cardiovascular and respiratory systems without abnormalities. Abdomen was globose, peristaltic, tympanic to percussion, depressible, painful palpation of right hypochondrium and right flank, where a tumor was palpated, with no signs of peritoneal irritation. Lower limbs showing varicose veins and venous insufficiency.

COMPLEMENTARY EXAMS

A computed tomography scan of the abdomen and pelvis was requested for diagnostic elucidation, and evidenced thickening in transverse colon, suggesting intestinal intussusception, and tumor can not be exclude. After evaluation of the surgical team the patient was hospitalized to proceed with the investigation. At the time of admission, laboratory and preoperative examinations were requested, which were without alterations, and begun the preparation for a colonoscopy. Colonoscopy evidenced an intraluminal content in the transverse colon in contiguity with the mucosa to clarify (figure 1), in addition to uncomplicated sigmoid colon diverticular disease.

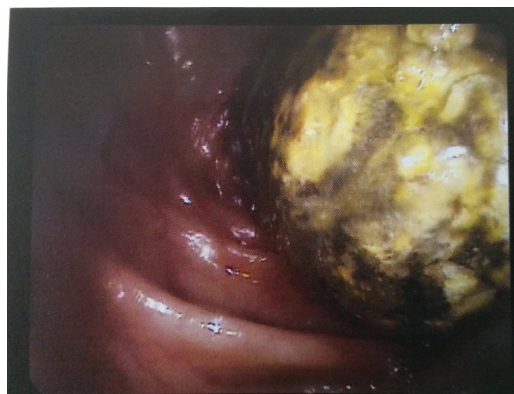


Figure 1 - Intraluminal content in transverse colon in contiguity with mucosa.

TREATMENT

The patient was submitted to laparoscopy segmental colectomy with entero-anastomosis, without intercurrents. The surgical specimen was referred for perioperative freezing (figure 2).



Figure 2 - Surgical specimen.

In the perioperative freezing evaluation, a pediculated tumor was found (figure 3).



Figure 3 - Pediculated tumor.

The surgical specimen was sent to pathology, and using hematoxylin-eosin staining, final histopathological report concluded that was a colonic lipoma (Figure 4).

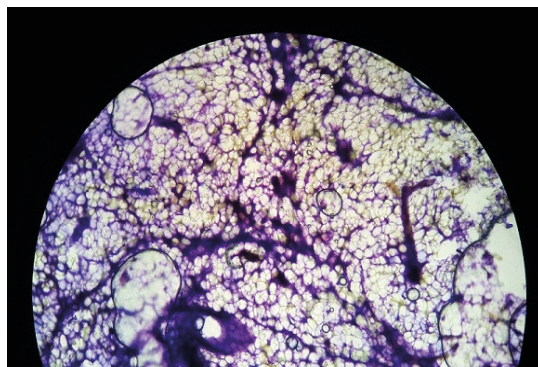


Figure 4 - Colonic lipoma histopathological findings.

In the immediate postoperative period, the patient was transferred to the intensive care unit (ICU) and released to the room on the following day, with a good clinical and surgical evolution. Patient was discharge on the fourth postoperative day, being clinically stable and asymptomatic.

DISCUSSION

Intussusception occurs when a proximal segment invaginates in a distal segment of the intestine². Usually this occurs due to an injury or irritant that is in contact with the wall or intestinal lumen, altering the peristaltic waves and leading to invagination and intussusception². Thus, there is inflammation, obstruction, thickening and intestinal ischemia¹⁴. It is more common in children and 90% are due to idiopathic causes,¹⁵ but when it occurs in adults, the cause of intussusception is identified in 90% of cases¹⁶.

Lipomas are benign tumors that originate from the adipocyte cells of the intestinal wall^{3,4}. Lipomas that occur in the large intestine have an incidence ranging from 0.035% and 4.4%¹⁶. The duration of symptoms may vary from 1 day to 7 years before they develop an intussusception¹⁷, and are usually diagnosed accidentally in imaging (endoscopic or radiological), surgeries or autopsies^{4,6}.

The case report consisted of the presentation of a transverse colon lipoma associated with intussusception and symptomatic intestinal obstruction, which is evident in 1% of adults¹. In the literature there are less than 80 reported cases of intussusception of the large intestine in adults caused by lipomas¹⁶.

In the description of the personal data, the patient reported was female and was in the eighth decade of life, and it is known that colon lipomas occur more in women than men^{3,4}, between the fifth and sixth decade of life^{3,4}. They are usually single lesions, but in 10% to 20% of the cases may present as multiple lesions¹⁶.

It was evidenced that the topography affected by the lipoma was the transverse colon, being considered rare, since they are found predominantly in the ascending colon, followed by the descending and transverse colon¹⁵.

The clinical presentation of colonic lipomas occurs when they are more than 2 cm in diameter¹. Generally those that are larger than 4 cm are symptomatic in 75% of the cases^{1,7,8}. In the case described, the patient reported colicky abdominal pain and abdominal distension, which are considered nonspecific signs and symptoms^{1,7,8}. She still had episodes of diarrhea, which can be found in some cases¹. The change in bowel habits may be related to obstruction of the large intestine².

On physical examination, the patient was hypocoricate, hypohydrated, with palpation of the hypochondrium and right flank, where an abdominal tumor was palpated^{1,7,8}. With this, we realized that the patient was already suffering from a long-standing disease (months years) without altering the general state¹⁸.

Colonoscopy is a widely used test, and lipomas appear as yellowish, pedicled or broad-based polyps, as well as being demonstrated by cushion signs, tent sign, tent sign, cushion sign, sign of exposed fat^{4,7,9,11}. In addition, lipomas can be visualized with the mucosa covering them ulcerated or necrotic, being difficult to differ from malignant lesions¹⁶.

In the colonoscopy examination of the patient, an intraluminal content was observed in the transverse colon presenting contiguity with the mucosa of the colon, with this we can infer that colonoscopy is useful only in cases of classic lipomas, requiring a definitive diagnosis in the intra or postoperative period¹¹.

In the tomographic image of the patient, transverse colon thickening was observed, corroborating the finding of intestinal intussusception, even though it was not a characteristic finding, such as the target lesion¹⁰. Abdominal USG and barium enema are considered as non-specific exams with limited diagnostic role^{16,20}.

The treatment is basically surgical in symptomatic cases with lipomas greater than 2 cm, which present with obstruction or intestinal bleeding, or if they mimic some malignant disease⁷ or even when they are asymptomatic and larger than 2 cm⁴.

It has been suggested that colon lipomas that are diagnosed prior to open surgery can be removed laparoscopically, presenting a clinical course of minor disease and disability, in addition to fewer postoperative complications such as pain, and shorter hospitalization and better recovery¹⁶.

In the present case, the patient underwent a transverse colon segmental colectomy by videolaparoscopy, being considered the standard gold treatment¹³ associated with an entero-entero anastomosis to restore intestinal transit^{2,10,19} and intraoperative freezing. Since laparoscopy is the accepted and recommended route before open surgery⁴. With the result of the intraoperative histological frozen sections a transverse colon lipoma was revealed. Therefore, depending on the characteristics found, they can be and a selectively resection could be done, avoiding unnecessary radical resections, as well as providing a good post-operative evolution^{1,2,4,7}.

CONCLUSION

It is notorious that colon lipoma is a rare benign tumor, which usually affects older women, and depending on its size and location may be asymptomatic, or cause nonspecific abdominal manifestations and even, more rarely, intussusception. Such a clinical entity can be easily confused with intestinal malignant tumors, and should be included in the differential diagnosis of these tumors.

Imaging tests, such as colonoscopy and computed tomography, are diagnostic methods, but preferably intraoperative freezing biopsy by laparoscopy or open surgery has been instrumental in avoiding large unnecessary radical resections in colonic lipoma intussusceptions treatment.

Therefore, the recognition of intestinal lipoma as a cause of abdominal signs and symptoms is very important, since right diagnosis and early treatment results in better prognosis.

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