## **Case Report**

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# Transanal excision of anorectal leiomyoma, a rare location pathology: case report and review

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#### **ABSTRACT**

Gastrointestinal leiomyomas (GILM) are benign tumors truly originated in the smooth muscle of the digestive tract, therefore, they are mesenchymal tumors and can come from the muscularis propria, muscularis mucosae or from the smooth muscle of the blood vessels. These tumors occur more frequently in women and despite being the second most common mesenchymal mural tumor of the digestive tract, anorectal location is very rare, representing less than 0.1% of all anorectal neoplasms. In the present case, we reported a patient with a rectal submucosal leiomyoma that was excised using a transanal approach.

Keywords: Leiomyoma, Benign tumor, Transanal, Rectal surgery

## INTRODUCTION

GILM are benign tumors truly originating from the smooth muscle of the digestive tract, therefore, they are mesenchymal tumors and can come from the muscularis propria, muscularis mucosae or the smooth muscle of the blood vessels. Its growth is predominantly intraluminal (50% of cases), although it can also be extraluminal, mixed (intra and extraluminal) or rarely, intramural. They are more common in women and despite representing the second most common mesenchymal mural tumor of the digestive tract, anorectal location is very rare, representing less than 0.1% of all anorectal neoplasms. 3-5

Histologically, they are characterized by a pattern of coiled smooth muscle bundles separated by connective tissue, spindle cells (elongated), with eosinophilic and occasionally fibrillar cytoplasm and distinct cell

membranes (Figure 2).<sup>6</sup> GILM can be confused with GISTs, so the immunohistochemical study becomes relevant for the differential diagnosis. Leiomyomas are positive for  $\alpha$ -smooth muscle actin, muscle-specific actin and desmin, but negative for protein CD34, CD117 and S100.<sup>7-9</sup>

#### **CASE REPORT**

In this paper we reported the case of a 45 year old woman who came to the emergency department for presenting a tumor in the anal canal of 2 years of evolution, mobile, which occasionally protruded during defecation, without other symptoms. She did not have weight loss or any other constitutive symptoms, however 3 days before going to the hospital she manifested anal pain and rectal bleeding; as an important surgical history, she had an appendectomy and 2 cesarean sections (the last 16 years ago), grade II obesity (BMI 39.06 kg/m²), no smoking, no

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familiar history of neoplasm or gastrointestinal cancer or polyposis.

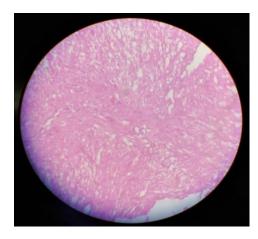


Figure 1: In light microscopy image of surgical piece we identified smooth muscle bundles separated by connective tissue, spindle cells, with eosinophilic cytoplasm.

The patient arrived to our hospital with a report of colonoscopy which found a pedunculated rectal polyp, identified 5 centimeters above anal margin and the rest of the study with no other pathological findings. Physical examination revealed a polypoid tumor protruding through the anus measuring approximately 4 centimeters in its transverse axis, pedunculated, fixed to the left anterolateral wall of the anal canal, painful on palpation, with visible vessels on its surface. The mucosa with shedding and layer hemorrhage. After the emergency room examinations we decided hospitalize her and she started a diet with clear liquids and mechanical preparation with warm saline solution enemas, in addition to parenteral analgesics (NSAID) was indicated.

Her laboratory studies reported a white cell count 8.2 cells/mcl, hemoglobin 9.8 g/dl, hematocrit 31.5%, platelets 269 /mcl, creatinine 0.6 mg/dl, urea 32.7 mg/dl, INR 1.0, aPTT 24.8 sec; preanesthesic evaluations was ASA III and Lee score 2 points, prior to the procedure parenteral antimicrobial prophylaxis was administered with a second-generation cephalosporin.



Figure 2: (a) The protruding tumor trough the anal canal during anoscopy; (b) a pedunculated polypoid tumor located at 4-5 clockwise above the pectineal line; (c) profuse vascularization and erosion of the mucosa is identified on the surface of the polyp, causing bleeding.

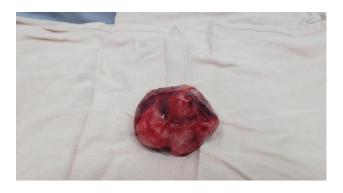


Figure 3: The polyp ex vivo.

Surgery was performed under regional anesthesia, with the patient in prone-jack knife position. During the anoscopy, the previously mentioned lesion was identified, which was 1 centimeter above the pectineal line, the rest of the anal canal was without alterations. The lesion was clamped to mobilize, it was identified adhering to the anal canal at 4 of clockwise (Figure 2). The lesion was pulled outwards, the pedicle was double clamped and sectioned with a scalpel, after this, the incision was closed with a 3-0 polyglactin 910 simple surget. We verified haemostasis and placed an intergluteal pack of gauzes (Figure 3). Subsequently, the oral route was reinitiated with a soft diet and the patient was discharged 12 hours after the procedure. After 1 year of follow-up no recurrence of the lesion was found, the patient has remained asymptomatic, with no sequelae of the surgery.

### **DISCUSSION**

Leiomyomas are tumors truly originating from the gastrointestinal smooth muscle, which represented 1 in every 2000-3000 neoplasms of the rectum, with a

predominance of appearance in the stomach 65%, small intestine in 25%, colon 3% and 7% in the rectum, depending on their dimensions may remain asymptomatic, when present manifestations were present the most frequent were foreign body sensation, hemorrhage and constipation.<sup>5,10</sup>

In the presented case, resection may be indicated transanal or endoscopic, but the accessibility to the lesion for transanal excision and the size of the neoplasm made us opt for open transanal surgery to perform the procedure, despite the fact that there were recent studies that showed good results when performing an endoscopic resection even in non-pedunculated lesions.<sup>11</sup> Due to the proximity to the anal margin, the invasion of the patient was minimal, as were the sequelae. These tumors recurred in around 30-40% and the risk of malignancy was around 10% to become a leiomyosarcoma, although in general the rate of malignant conversion for leiomyomas of the digestive tract was not fully established or varied according to their location. 12-14 So patient follow up was recommended, in our case facilitated by its proximity to the anal margin can be performed by anoscopy or endoanal ultrasound.

#### **CONCLUSION**

Despite being a pathology that is rarely located in the rectum, leiomyoma must be considered as one of the differential diagnoses among benign neoplasms of the digestive tract. They are generally well defined, without invasion into adjacent structures and appear benign to the naked eye. However, resection should be performed using the most comfortable modality for the surgeon (endoscopic or open) and appropriate follow-up should be offered in order to rule out a malignant transformation.

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