Anorectal leiomyoma: A case report and literature review

Leiomioma anorrectal. Presentación de un caso y revisión de la literatura

Leiomyoma is a tumor strain that derives from the smooth muscle fibers and develops in the regions where these fibers are present. In the digestive tract, the anorectal location is uncommon and is usually diagnosed late due to intraluminal growth in over 50% of the cases. Given the exceptional location, we present the case of a 49-year-old woman who sought medical attention for a tumor of 7-month progression in the perineal region that had progressively increased in size. She was asymptomatic during this period and did not present with tenesmus, rectorragia, or proctalgia. Physical examination revealed a right perianal tumor of 3 cm in diameter that was mobile and had an elastic consistency to the touch (fig. 1). Nuclear magnetic resonance imaging showed a well-defined, nodular, oval-shaped lesion that measured about 5 cm in diameter, with heterogeneous contrast medium uptake. Its location was intersphincteric and adjacent to the intergluteal fold. An ultrasound image identified a hypoechogenic ovoid nodule with abundant vascular flow. A thick needle biopsy was performed and the preoperative anatomopathologic diagnosis was leiomyoma (fig. 2). The patient was operated on and an oval intersphincteric tumor with a smooth external surface and a conglomeratic aspect was removed; there was no solution of continuity with the superficial fascicule of the external anal sphincter and minimum continuity with residual fibers of the internal anal sphincter (fig. 3). Patient progression was favorable and she is presently asymptomatic, with no tumor recurrence and with complete sphincteric continence.

Leiomyoma was first described by Virchow in 1854, defining it as a benign tumor of mesenchymal origin dependent on smooth muscle fibers. It represents approximately 3.8% of all the benign, soft tissue tumors and its pathogeny continues to be debated today.\(^1\)\(^2\) It is classified into 2 variants: superficial and deep. One of the better known examples of the superficial variant is angioleiomyoma of the female genital tract. Leiomyoma of the deep variant, described by Kilpatrick and Billings, is in turn classified as somatic and as retroperitoneal. Unlike the somatic leiomyomas, 20% of the retroperitoneal type show low levels of mitotic activity. Leiomyomas of the superficial variant tend to more often affect the extremities and they affect both sexes, whereas the retroperitoneal variant involves the pelvic area in postmenopausal women.

The organ most commonly affected in the gastrointestinal tract is the stomach, followed by the small bowel. The esophagus, colon, and rectum are less frequent locations.\(^3\)\(^4\) The anorectal location presents in under 0.1% and is considered an extraordinary entity with an overall rectal tumor incidence of 1:2000. Tumor growth is intraluminal in 50% of the cases, extrarectal in 30%, intra and extraluminal in 10%, and intramural in the remaining 10%.\(^5\)

The clinical course of these tumors varies widely, and it is the location and vascularization that determine patient symptomatology.\(^7\) Due to the submucosal origin, they are often asymptomatic in their initial stages. Later, when they reach significant sizes, anal and perineal pain, bowel transit alterations, pruritus, rectorragia, or tenesmus are some of the most frequent symptoms for which the patient seeks medical attention. Our patient was asymptomatic during the progression of tumor growth, probably being in the initial stage of the disease.

Tumors of the deep soft tissues tend to grow larger than the superficial variant due to the fact that they go by undetected and are diagnosed in the late stages.
Figure 2  A) Neoplastic proliferation made up of short fascicles of fusiform cells, without atypia (H&E x20). B) Immunohistochemical positivity for smooth muscle markers (x20). C) Positivity for desmin (x20). D) Positivity for H-caldesmon (x20).

Figure 3  A) Surgical removal of the anorectal tumor that does not appear to have a solution of continuity with the sphincteric fibers. B) Smooth surface oval-shaped tumor.

The clinical symptoms of the patient, together with a complete physical examination including endoscopy with biopsy are usually essential for diagnosis. Imaging techniques are useful for preoperative staging because they enable the relation with the sphincters and urogenital tract to be defined. In the case of our patient, the preoperative studies performed allowed us to make the diagnosis and plan the surgical intervention.

In relation to management, complete surgical resection of the tumor is the treatment of choice. Easily accessible intrarectal leiomyomas can be transanally resected. Low anterior resection or abdominoperineal amputation should be reserved for those cases in which local resection cannot be performed due to tumor size or wall involvement. Another approach should be contemplated, which could be transperineal, pararectal, or transvaginal, when the tumor is extrarectal. Our patient developed a progressive increase in tumor size with no other accompanying symptoms, and so the decision was made to extirpate the tumor.

These tumors recur in up to 40% of the cases and up to 10% recur as leiomyosarcomas; this appears to be related to incomplete resection or a size greater than 5 cm. The fact that there is the possibility of recurrence, even in low-grade tumors, makes follow-up essential.9,10

In conclusion, leiomyoma of the anal sphincter is a rare entity in the gastrointestinal tract, and because of its location it is important to make the correct differential diagnosis with other entities that develop at the same site. When there is suspicion, biopsy is recommended, as well as an imaging study to determine the relation with the sphincteric complex and adjacent organs. In this manner, the adequate surgical approach can be planned.
Financial disclosure

No financial support was received in relation to this article.

Conflict of interest

The authors declare that there is no conflict of interest.

References


Panenteric melanosis secondary to melanoma of the rectum: A case report

Melanosis panentérica secundaria a melanoma rectal. Reporte de caso

A 78-year-old woman, resident of Mexico City, had a past history of open cholecystectomy, scoliosis in occasional treatment with anti-inflammatory agents for 10 years, and allergy to penicillin.

Study motive. One year and 6 months with hyporexia, occasional nausea with no vomiting, mild intermittent pain in the epigastrium and hypogastrium, weight loss of 4 kg in one year, stools with reduced consistency, and hematochezia during the past 4 months.

The patient had a body mass index of 25, oval-shaped ephelides measuring 2-3 mm on the face and neck, and 1-2 mm on the back of the hands, a mildly distended abdomen, and hepatomegaly.

Laboratory tests reported negative fecal occult blood, hemoglobin 8.9 mg/dl, and hematocrit 28%.

She had been studied by the Oncology Service 4 months earlier for suspicion of cancer. An abdominal tomography scan showed hepatic lesions consistent with metastasis and fine needle biopsy of the lesions was performed. The histopathologic study reported malignant melanoma metastasis. Cytology was also consistent with malignant melanoma.

Lower gastrointestinal endoscopy revealed a vegetative, lobulated, hyperchromic lesion 2 cm from the anal margin consistent with malignant melanoma and diffuse flat hyperchromic lesions measuring 2-3 mm in the descending colon and the sigmoid colon (fig. 1). The histopathologic report confirmed malignant melanoma. Upper gastrointestinal endoscopy showed unaltered esophageal mucosa and multiple non-confluent 2-3 mm flat, hyperchromic lesions in the stomach. The first and second portion of the duodenum had multiple flat, hyperchromic lesions of similar characteristics (fig. 2). The histopathologic study reported gastric and duodenal melanosis due to melanin deposits at the macrophage level of the lamina propria. For the differential diagnosis a Fontana-Masson stain was done and its result was positive (fig. 3); a Pearls stain was negative in both biopsies.

A distinction should be made between melanosis, as the pigmentation of mucosae from the deposit of melanin in the macrophages-lysosomes at the level of the lamina propria, and pseudomelanosis, described as a pigmentation of the mucosa secondary to deposits of iron, ferrous sulfide, hemosiderin, lipomelanin, lipofuscin, calcium, potassium, aluminum, magnesium, and silver at the same level. After a review of the medical literature, we found reports of cases with pseudomelanosis secondary to the deposit of iron mainly at the level of the duodenum, with a predominance in Afro-American women in the seventh decade of life (range of 18 months -79 years). Important pigmentation pathology references at the level of the digestive tract.