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A Rare Case of Peri-Anal Leiomyoma

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Abstract **Case Report**

Leiomyoma is a benign soft tissue tumor of mesenchymal origin that derives from smooth muscle fibers [1, 2]. In the digestive tract, the anorectal location is uncommon and is usually diagnosed late due to intraluminal growth in over 50% of the cases [2]. We present the case of a 55-year-old woman who presented with a peri anal mass found more than 3 years ago. The 5cmx4cmx3cm mass was located in the left side of the anus, MRI revealed a clear demarcation between the mass and the external anal sphincter. Surgery was performed with a para-anal incision. The external anal sphincter was largely intact. A complete extracapsular dissection was performed.

Keywords: Leiomyoma, mesenchymal origin, intraluminal growth, MRI, para-anal incision.

INTRODUCTION

Leiomyomas are tumors that originate from the smooth muscle and may occur at the sites where these fibers are present.

They are unusually found in the anorectal region, where they represent less than 0.1% of the tumors of the rectum, with a rare presentation in soft parts, mainly in the perianal topography.

In the literature, the perianal leiomyoma finding are rare: isolated cases have been described, and the most common presentation is a painless tumor in this location.

CASE REPORT

A 55-year-old female was hospitalized with a perianal mass found more than 3 years ago. The patient did not present symptoms related to defecation, as tenesmus, rectorrhagia, proctalgia, constipation, or incontinence. The mass was located on the left side of the anus; it was firm upon palpation, was approximately 2cm from the edge of the anus.

The MRI dimensions of the mass were 5 × 4 × 3 cm and showed no muscular or osseous invasion, with well-defined walls and considerable enhancement. There was a clear demarcation between the mass and the external anal sphincter.

Surgery was performed with a para-anal incision. The external anal sphincter was intact, the mass was covered by a thin capsule, and a complete extracapsular dissection was performed. The external anal sphincter was dissected for mass removal. This was followed by placement of a negative pressure drainage tube, and then layer-by-layer suture repair of the incision.

Postoperatively, after healing, the patient was discharged. She returned for a follow-up visit. On examination, there was evident wound healing and no recurrence. Additionally, the patient was free of discomfort, pain, and fecal incontinence.

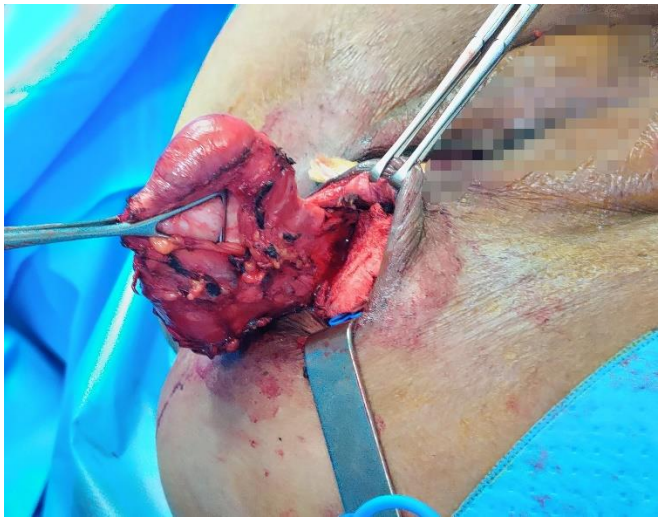

Figure 1: Dissection of the left peri anal leiomyoma

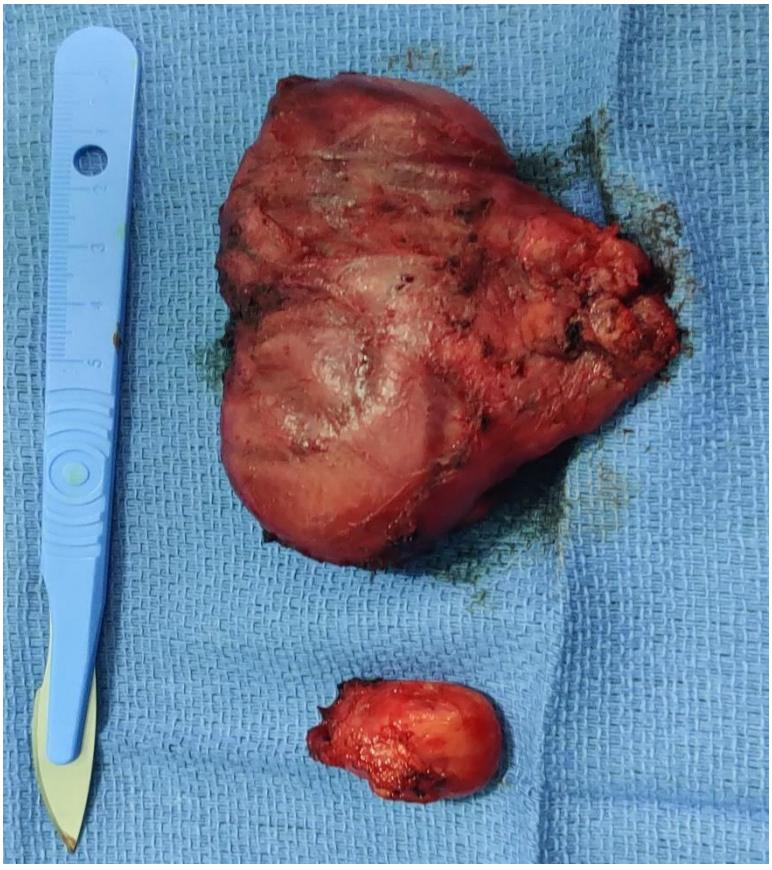

Figure 2: Picture of the resected leiomyoma

DISCUSSION

First described by Virchow in 1854, leiomyomas are benign soft tissue tumors that arise from smooth muscle accounting for 3.8% of all benign soft tissue tumors [3].

Leiomyomas are classified into superficial pilar, genital, angioleiomyoma and deep varieties. The pathological features of deep soft tissue leiomyomas were first described by Kilpatrick *et al*., and Billings *et al*., [4, 5].

Leiomyomas can be classified into somatic soft tissue and retroperitoneal-abdominal leiomyomas. This last type of myomas usually occurs in the pelvic retroperitoneum and affects females preferentially.

The anorectal location presents in under 0.1% and it is considered an extraordinary entity with an overall rectal tumor incidence of 1:2,000. Tumor growth is intraluminal in 50% of the cases, extra rectal in 30%, intra- and extraluminal in 10%, and intramural in the remaining 10% [6].

The differential diagnoses for a perianal mass include gastrointestinal stromal tumors (GISTs), leiomyosarcomas, endometriomas, lipomas, liposarcomas, and fibrosarcomas.

The clinical course of perianal leiomyomas varies widely, and it is the location and vascularization that determine patient's symptomatology [7]. They are often asymptomatic in their initial stages. Later, when they reach significant sizes, anal and perineal pain, bowel transit alterations, pruritus, rectorrhagia or tenesmus are some of the most frequent symptoms for which the patient seeks medical attention.

Magnetic resonance imaging (MRI) is an excellent imaging tool for the characterization and diagnosis of perineal soft tissue lesions. However, perineal leiomyomas can have variable MRI presentations [8, 9]. It is important to consider a gastrointestinal stromal tumor (GIST) as a differential and distinguish it from a leiomyosarcoma [10].

Leiomyosarcomas usually present as nonspecific soft tissue masses with low-intermediate signal intensity on T1 weighted images and high signal intensity on T2 weighted images [11]. Leiomyosarcomas are mostly irregular, poorly defined tumors without a limiting membrane.

Since these tumors are relatively insensitive to chemotherapy, surgery is the first treatment and it should be adequate to the site and dimension [12]. In case of leiomyosarcoma the surgical approach might be aggressive from the beginning such as abdomino-perineal resection or low anterior resection even if it is debated the overall survival betterment in these cases [13, 14]. Conversely, leiomyoma has a high likelihood to recur if the transverse diameter is more than 5 cm.

Vorobyov *et al*., stated that if the tumor is located in the submucosal layer and it is less than 1 cm the endoscopic excision can be performed [15]. Fedorov and Pershtein, instead, stated that if the lesion is less than 5 cm and it is placed in the inferior third of the rectum the transanal excision should be the treatment of choice [16]. Besides, Zerilli *et al*., proposed an alternative treatment such as the transanal endoscopic microsurgery which let performing a partial full-thickness excision of the rectal wall with free margins and then the rectal suture [17].

CONCLUSION

Perianal leiomyoma is a rare tumor in the gastrointestinal tract. Imaging studies are essential to determine the relationship with the sphincteric complex and adjacent tissues, and to make a differential diagnosis with other entities such as GISTs, leiomyosarcomas, endometriomas, lipomas, and liposarcomas. In this way, an adequate surgical approach can be planned.

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