

## Case Report

# Adenomyoma of the Left Colic Flexure: A Case Report and Review of the Literature

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## Abstract

Adenomyomas are the focal form of adenomyosis and are a form of benign tumor-like masses, usually located within the uterus. The localization of those entities outside the uterus and outside the pelvis is a rare condition and it is called extrapelvic adenomyoma. Preoperative diagnosis is not easy and a correct diagnosis can only be made by an anatomopathologist after surgery. We report a case of adenomyoma of the left colic flexure, in addition to a literature review.

**Keywords:** Adenomyoma; Surgery; Diagnosis; Gynecology

## Introduction

Adenomyosis is a common benign condition, usually of gynecological interest, characterized by the presence of endometrial glands and stroma within the myometrium. Adenomyosis is typically presents in three forms, depending on its distribution: focal, diffuse and cystic. The focal form is called adenomyoma and its diagnosis can only be made after surgical procedure by anatomopathologist with histopathologic exam [1]. Adenomyosis is most frequently localized within the myometrium and when it is located outside the uterus it presents in focal form, and we referred to it as extrauterine adenomyoma or extrapelvic adenomyoma; the latter is an extremely rare form. Another rare lesion is Uterus-Like Mass (ULM): a rare benign tumor, first described by Cozzutto, which typically presents as a single mass that can occur in a variety of pelvic and extra-pelvic organs [2]. Preoperative diagnosis is not easy. The focal form is difficult to diagnose and generally requires Magnetic Resonance Imaging (MRI), less frequently US, CT scan or endoscopy depends on the location. Extrapelvic adenomyomas have been described in the liver, upper abdomen, inguinal scar, appendix and small bowel mesentery [3-7].

## Case Presentation

A 53-year-old female patient presented in August 2023 for a screening colonoscopy. Her medical history is significant for diabetes mellitus, hypothyroidism, and laparoscopic removal of uterine fibroids. The colonoscopy revealed a lesion in the distal descending colon, approximately 3 cm in diameter, with a smooth surface covered by regular mucosa, suggestive of a submucosal origin. Biopsies were taken, and histopathological examination reported "fragments of intestinal mucosa with moderate exudative and productive

inflammation of the chorion, accompanied by extravasation of blood". Additionally, during the procedure, two small polyps were found in the sigmoid colon and in the rectum (histopathological examination reported an intestinal tubulovillous adenoma with low-grade dysplasia).

Subsequently, the patient underwent an abdominal contrast-enhanced CT abdominal scan, which documented at the level of the descending colon a "round alteration approximately 1 cm in diameter with contrast enhancement, not further characterizable, and without significant nearby lymphadenopathy" and a total-body PET scan resulted negative for pathological uptake. The case was then evaluated by a gastroenterologist along with a radiologist and both decided to perform radiological follow-up by repeating the CT scan and colonoscopy (Figures 1 and 2).

Between April and May 2024, the patient underwent a CT colonography, which confirmed the presence of a vegetative mass in the mid-distal region of the descending colon, involving the full thickness of the bowel wall, and a new colonoscopy exam, which confirmed the presence of the polypoid lesion in the descending colon "with regular mucosa, showing a slight central umbilication at the apex, without ulcerations or recent bleeding". The biopsy again was positive for inflammation with associated reactive/regenerative changes of the glandular epithelium and mild submucosal fibrosis. Finally, a year later then the first one, the patient underwent a new contrast-enhanced thoraco-abdominal CT scan, which reported "the nodule characterized by vivid contrast enhancement located in the lumen of the mid-section of the descending colon remained unchanged in size and tomodensitometric characteristics". The case was then discussed in a Multidisciplinary Oncology Group (GOM), which recommended a resective surgical intervention for diagnostic and therapeutic purposes.

On August 29, 2024, the patient underwent laparoscopic resection of the left colic flexure and cholecystectomy. The postoperative course was uneventful, and the patient was discharged after 8 days. One month later, no postoperative complications were reported.

Histological examination of the left colic flexure, including the noted lesion, was positive for adenomyoma. Immunohistochemical investigations were positive for CD10 and desmin. This finding suggested an extra-uterine adenomyoma.

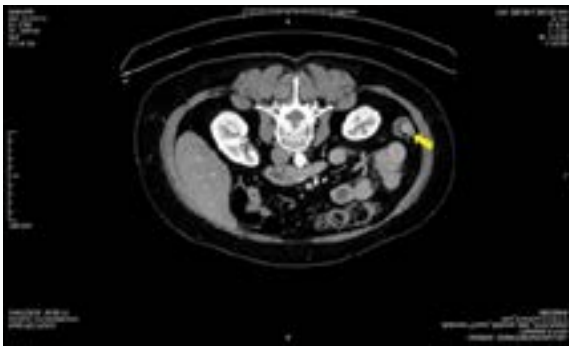
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**Figure 1:** CT scan, arterial phase - Contrast-enhancing adenomyoma of the descending colon (arrow).



**Figure 2:** CT scan, venous phase - Contrast-enhancing adenomyoma of the descending colon (arrow).

## Discussion

Adenomyomas are benign tumor-like masses composed of smooth muscle tissue and endometrioid glands and stroma, which are usually located within the uterus. The occurrence of adenomyomas in extrauterine locations is extremely rare, with only a limited number of cases documented in the literature. This case represents a rare instance of an extra-uterine adenomyoma involving the descending colon, which is of significant clinical interest given its atypical presentation and challenging diagnostic process.

Na et al. [7] reported a similar occurrence of extrauterine masses resembling uterine tissue in the colon, termed as Uterus-Like Masses (ULMs) involving the cecum, descending colon, and mesocolon. These findings emphasize the possibility of such masses being part of the differential diagnosis for colonic submucosal tumors in female patients presenting with chronic abdominal pain or symptoms related to menstruation. This case similarly highlights the diagnostic complexity, as the lesion was initially thought to be benign and required multiple imaging and biopsy assessments for characterization.

Cozzutto [2] first described the entity of a uterus-like mass, which has since been observed in various pelvic and extrapelvic locations. These masses are composed of an endometrial-like cavity surrounded by smooth muscle, similar to the structure observed in the current case. The hypothesis is that such masses may arise due to embryologic remnants or differentiation of pluripotent mesenchymal cells.

Paul et al. [1] reviewed cases of extrauterine adenomyomas, noting that their presentation could include locations such as the pararectal space, ovarian ligaments, or even the liver. Imaging techniques

such as MRI and CT are instrumental in identifying the lesion's characteristics, but a definitive diagnosis can only be confirmed histologically, as seen in the present case. The findings in this case are in line with the literature, where immunohistochemical analysis revealed positivity for CD10 and desmin, supporting the diagnosis of adenomyoma [8].

Stewart et al. [3] reported that atypical smooth muscle cells were present in extrauterine adenomyomas, making it difficult to distinguish these from leiomyomas or endometriosis-associated lesions, emphasizing the importance of a detailed pathological analysis to accurately diagnose masses that contain both glandular and smooth muscle components.

Finally, the differential diagnosis of extrauterine adenomyomas should consider other conditions, including leiomyomatosis peritonealis disseminata, parasitic leiomyomas, and endometriosis, as discussed by Moghadamfalahi and Metzinger [4]. These conditions can present with overlapping imaging characteristics and may only be distinguished through careful histopathological examination, including immunohistochemical markers like CD10, SMA, and desmin, which were utilized in this case to reach a conclusive diagnosis.

## Conclusion

Extrapelvic, extra-uterine adenomyomas are a rare condition. The current case contributes to the growing body of literature on this subject and emphasizes the importance of a multidisciplinary approach for accurate diagnosis and management. Imaging may not always provide a definitive diagnosis, highlighting the critical role of histopathological analysis. Clinicians should maintain a high index of suspicion for extrauterine adenomyomas in patients presenting with atypical colonic masses, especially in individuals with a history of gynecological conditions such as endometriosis or uterine surgery.

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