

# Gynecological Leiomyoma of the Anterior Abdominal Wall: Localization Beyond the Uterus

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## ARTICLE INFO

**Received:** 📅 November 07, 2022

**Published:** 📅 November 17, 2022

**Citation:** Jordan Ohayon, Michael Osseis, Chetana Lim, Chady Salloum and Daniel Azoulay. Gynecological Leiomyoma of the Anterior Abdominal Wall: Localization Beyond the Uterus. Biomed J Sci & Tech Res 47(2)-2022. BJSTR. MS.ID.007460.

## ABSTRACT

**Introduction:** Leiomyomas are benign soft tissue tumors of smooth muscle origin, most found in the uterus. We present here a rare case of extra uterine leiomyoma in the abdominal wall discovered during laparoscopic cholecystectomy.

**Case Report:** Fifty-six-year-old woman admitted to our surgery unit with a diagnosis of cholecystitis. During laparoscopic cholecystectomy, a peritonised parietal intra-abdominal lesion was noted and excised. Histology revealed a well circumscribed tumor with proliferating smooth muscle cells suggestive of a benign leiomyoma.

**Discussion:** Extra uterine leiomyomas and abdominal wall leiomyomas are rare entities that mainly occur in an area with skeletal muscle tissue. Several theories have been postulated to explain the occurrence of leiomyomas in the abdominal wall; seeding of myomatous tissues during previous surgeries more commonly with laparoscopic procedure, benign metastasizing leiomyoma, disseminated peritoneal leiomyomatosis, intravenous leiomyomatosis, parasitic leiomyoma can be seen. Our patient has a benign calcified leiomyoma but with no history of gynecologic surgery. Parasitic leiomyoma can be an option in our case. Laparoscopy is a good diagnostic tool, and it is facilitating resection or biopsy of these lesions.

**Conclusion:** Leiomyoma should always be kept in mind when listing the differential diagnosis of anterior abdominal wall tumors.

## Introduction

Leiomyomas are benign soft tissue tumors of smooth muscle origin, most found in the uterus [1-2]. Extra uterine leiomyomas presenting as an abdominal mass is a rare issue and is often a diagnostic challenge [3]. We present a rare case of primary abdominal wall leiomyoma discovered during laparoscopic cholecystectomy.

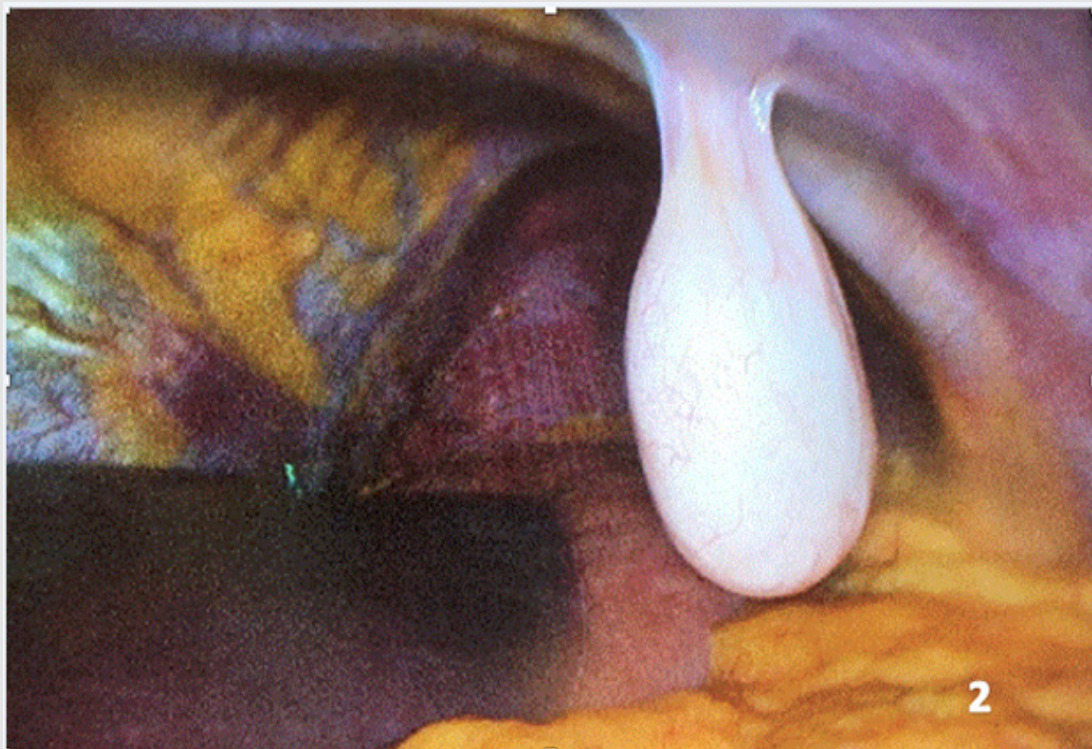
## Case Report

Fifty-six-year-old woman with no known medical illness except for appendicitis in childhood, admitted to our surgery

unit with a diagnosis of cholecystitis. An abdominal ultrasound and a Liver MRI were done pre-operatively and showed calculus cholecystitis with an unspecific abdominal wall lesion (Figure 1). During laparoscopic cholecystectomy, the peritonised parietal intra-abdominal lesion was noted and excised (Figure 2). Histology revealed a well circumscribed tumor with proliferating smooth muscle cells suggestive of a benign leiomyoma with lots of collagen fibers, positive for smooth muscle actine, desmine, H caldesmone and estrogen receiver, and negative for KIT, DOG1, PDGFRA and CTNNB1.



**Figure 1:** 1-Abdominal MRI done preoperatively showing the abdominal wall lesion (yellow Arrow).



**Figure 2:** 2-Parietal intra-abdominal lesion shown during laparoscopic Cholecystectomy.

## Discussion

Extra uterine leiomyomas and abdominal wall leiomyomas are rare entities that mainly occur in an area with skeletal muscle tissue. The exact etiology for the development of a leiomyoma is still unknown. Several theories have been postulated to explain the occurrence of leiomyomas in the abdominal wall; seeding of myomatous tissues during previous surgeries more commonly with laparoscopic procedures [4], benign metastasizing leiomyoma, disseminated peritoneal leiomyomatosis, intravenous leiomyomatosis, parasitic leiomyoma can be seen [5].

This case is unusual because our patient has a benign calcified leiomyoma but with no history of gynecologic surgery. The only surgery she underwent was an appendectomy 30 years prior to her present complaints. Whether an appendectomy can give rise to seeding of a leiomyoma away from the incision site on the anterior abdominal wall is a moot point. Parasitic leiomyoma is an option in our case; the leiomyoma of the uterus became adherent to the abdominal wall developed an auxiliary blood supply, and lost their original attachment to the uterus, thus becoming "parasitic." Pedunculated lesions are at increased risk of torsion and usually it presents with acute abdominal pain. Torsion of Parasitic myomas has been described before, and urgent surgery was needed [6]. Standard radiologic imaging such multidetector computed tomography scanner and ultrasonography of the abdomen may

not be always possible to determine the origin of these tumors. Laparoscopy is a good diagnostic tool, and it is facilitating resection or biopsy of these lesions.

## Conclusion

While completing the list of differential diagnosis of anterior abdominal wall tumors, leiomyoma is to be kept in mind.

**Funding or Grants:** None

**Conflict of Interest:** None

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ISSN: 2574-1241

DOI: 10.26717/BJSTR.2022.47.007460

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