

Huge Subserosa Leiomyoma of Uterus Presenting as Incisional Hernia with Divarication of Recti, A Rare Case Report

Aliya Ishaq*, Silva Mansour and Esaaf Hasan Ghazi

Department of General Surgery Dubai hospital, Dubai Health, UAE

*Corresponding author:

Aliya Ishaq,
Department of General Surgery Dubai hospital,
Dubai Health, UAE

Received: 15 Feb 2025

Accepted: 23 Feb 2025

Published: 28 Feb 2025

J Short Name: JCMi

Copyright:

©2025 Aliya Ishaq, This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and build upon your work non-commercially.

Citation:

Aliya Ishaq, Huge Subserosa Leiomyoma of Uterus Presenting as Incisional Hernia with Divarication of Recti, A Rare Case Report. J Clin Med Img. 2025; V8(7): 1-6

1. Abstract

Leiomyomas of uterus are benign tumors which can present in a variety of ways from being asymptomatic to cause of excessive uterine bleeding, sever pain, infertility and pressure effects specially f huge in size .We present a case of huge uterine leiomyoma which presented with abdominal mass causing divarication of recti with incisional hernia and pressure effects.Patient was treated with gynaecology team with total abdominalhysterectomy with bilateral Salpingo-oophorectomy, incisional hernia and divarication of recti repair with placement of mesh and abdominoplasty.

2. Introduction

Uterine leiomyoma is the most common benign tumors of the female reproductive tract originating from the uterine smooth muscle causing morbidity and impairing their quality of life. It is common among women in the age group 30 to 50 years of age. Women are usually asymptomatic or may present with various symptoms such as abnormal uterine bleeding, pelvic pain, dysmenorrhea, and change in bowel and bladder habits due to pressure symptoms. It is one of the leading causes of hysterectomy. Women with uterine leiomyoma can be managed medically and surgically.

The exact cause of uterine fibroids isn't clear. But these factors may play roles[1]:

- **Gene Changes.** Many fibroids contain changes in genes that differ from those in typical uterine muscle cells.
- **Hormones.** Two hormones called estrogen and progesterone cause the tissue the lines the inside of the uterus to thicken during each menstrual cycle to prepare for pregnancy. These hormones

also seem to help fibroids grow.

Fibroids contain more cells that estrogen and progesterone bind to than do typical uterine muscle cells. Fibroids tend to shrink after menopause due to a drop in hormone levels.

- **Other Growth Factors.** Substances that help the body maintain tissues, such as insulin-like growth factor, may affect fibroid growth.

- **Extracellular Matrix (ECM).**

For small fibroids can be treated by hysteroscopic resection but large ones require laparoscopic myomectomy or occasionally open surgery as well as Incisional hernia refers to an abdominal wall hernia at the site of a previous surgical incision. It can present as a definite hernia, with all the hernia components of the defect, sac, and content, or as a weakness of the fascial wall, with shallow sac and occasional bulge of content. While this complication occurs in 5–10% of patients after abdominal surgery, with only 1% of those cases causing obstruction, most hernias occur through the fascia, and peritoneal hernias are not ordinarily reported[2]. Prior cases of peritoneal hernia have involved congenital defects, herniation through the peritoneal defect of the pouch of Douglas, and peritoneal pocket hernias after laparoscopic ventral herniorrhaphy. If intra abdominal pressure increases because of any reason the size of hernial defect increases as well.Divarication of recti is also common in female patients and specially it happened post partum because of enlarged uterus and goes back to normal if there is significant interval between pregnancies. However, if there are risk factors specially increased intra abdominal pressure in the form of mass or another pregnancy it can stay as permanent bulge and

patient suffers from disfigurement as well as pressure symptoms because of underlying mass.

3. Case Report

56 years old female known case of chronic renal impairment on dialysis, Hypertension and diabetes mellitus presented to surgical clinic with abdominal swelling. She had previous history of 5 cesarian sections as well as uterine fibroid which was managed conservatively. Her last cesarian section was 5 years ago and she developed incisional hernia after cesarian section and it was gradually increasing in size and causing her problem with daily life activities. On examination she was hemodynamically stable with huge abdominal swelling almost occupying entire abdomen with divarication of recti and a big defect at site of previous cesarian section scar, both incisional hernia at cesarian section scar and divarication of recti were one defect with palpable firm mass occupying the whole defect and redundant skin. Her routine blood investigations showed low hemoglobin which was always low contributing to her chronic kidney disease as well as deranged renal parameters.

US pelvis was done which showed;

Left adnexal mass measures 20x16cm. Intralésional vascularity in color doppler.

The uterus appears normal in size, is displaced posteriorly, by the large left adnexal mass. Diffuse myometrial calcifications seen.

It measures approximately 10 cm in longitudinal extent. ET 7.6mm.

Small posterior and anterior myometrial fibroids seen, measures <1cm.

A Nabothian cysts in cervix (10mm)

Both ovaries sub optimally seen

No free fluid in pelvis.

US films are shown below in Figure 1

Ct scan abdomen plain was done as patient was a case of renal failure which showed;

large lobulated pelvi-abdominal mass, seen inseparable from the uterus & both adnexa

2. The mass is seen abutting / pushing the rectum, sigmoid & descending colon & pushing the UB anteriorly

3. The left kidney seen pushed upwards & appears comparatively smaller in size

4. Bilateral mild preinephric fat stranding.

5. Mild fullness of the right PCS.

6. Right renal cortical hypodensity -?renal cyst

7. Limited evaluation of the entire course of both ureters due to the presence of the large pelvi-abdominal mass.

8. Extensive bilateral renal vascular calcification.

Ct scan pictures are shown below in figure 2, 3 and 4

Patient was booked for Total abdominal Hysterectomy with bilateralsalpingo-oophorectomy along with incisional hernia and divarication of recti repair with gynecology colleague and was optimized in coordination with nephrology and medical teams.

She underwent first hysterectomy with salpingo-oophorectomy by gynecologist through scar of previous cesarian section and operative findings were as follows;

uterus reaching mid distance xyphoid to umbilicus asymmetric bulge towards the left side;

large ventral hernia 20/15 cm midline, with recti diastasis and abdominal wall weakness.

operative pictures of fibroid are shown in figure 5 and 6.

After hysterectomy, primary repair of incisional hernia was done with proline zero along with divarication of recti repair with same suture followed by placement of 30 x 30 cm mesh on abdominal wall.

subcutaneous suction drains were placed over mesh. Her post operative course was unvent full and she was discharge home on 5th post operative day. She had follow up in surgical clinic after 2 weeks and then 2 months and had an event full recovery.

Histopathology showed;

Labelled as Uterus, Cervix, Right and Left Fallopian Tubes:
 -Cervix: (ectocervix and endocervix identified): - Chronic cervicitis with papillary endocervicitis, squamous metaplasia and occasional Nabothian cysts. - Uterine Body: - Endometrium: - Secretory Phase Endometrium (shows focal prominent autolytic changes).
 -Endometrial Polyp ((shows focal prominent autolytic changes). - (No evidence of endometrial hyperplasia) - Myometrium: (Lower uterine segment/ isthmic portion tumor): -The morphological features and immunohistochemical profile result are in keeping with Leiomyoma with marked hyaline and myxoid degenerative changes (Neurilemmoma/ Schwannoma-like Leiomyoma). - One Fallopian Tube: Within Normal Limits (cross-section of fallopian tube identified) -One Parafimbrial Cyst: Benign Simple Cyst - Other Fallopian Tube: Within Normal Limits (cross-section of fallopian tube identified) -Two Parafimbrial Cysts: Benign Simple Cysts -One Ovary: Within Normal Limits (shows Corpus albicans and one tiny luteinized follicle cyst) -Other Ovary: Within Normal Limits (shows Corpus albicans and few tiny luteinized follicle cysts and hemorrhagic Corpus luteum) -No evidence of malignancy.

-Immunohistochemistry done on the spindle cells shows the following profile: -Desmin, SMA & Caldesmon: Diffuse strong positive reaction -CD31: Shows positive reaction in the blood vessels -HMB 45 & S100: Negative reaction -Ki-67: Low Ki proliferation index.



Figure 1: Ultrasound pelvis.

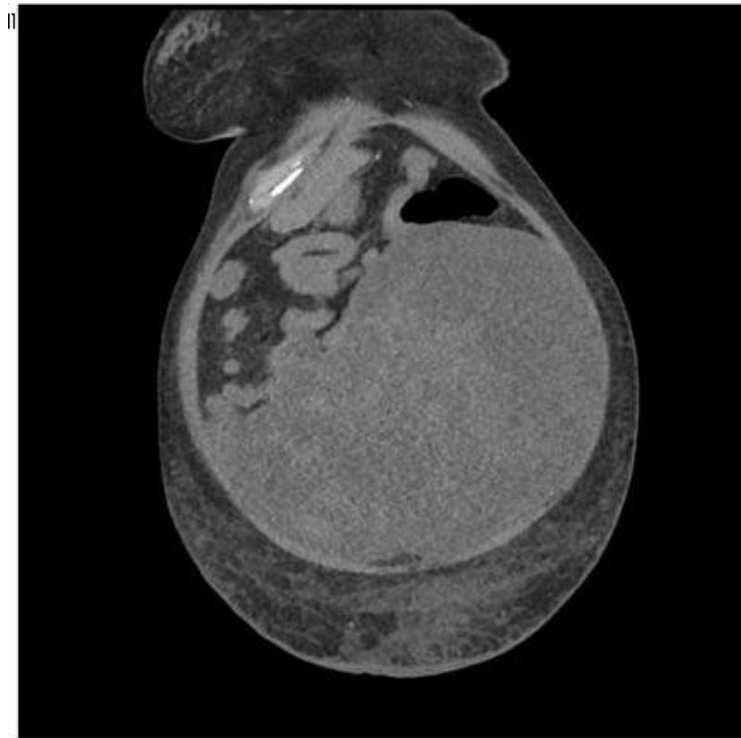


Figure 2: Ct scan abdomen plain coronal view.



Figure 3: ct scan abdomen plain axial view.



Figure 4: ct scan abdomen plain coronal view.



Figure 5: Operative view of uterine fibroid.



Figure 6: operative picture of uterine leiomyoma

4. Discussion

The most frequent benign pelvic tumors in women are uterine leiomyomas. They are monoclonal tumors of the myometrium's smooth muscle cells, and they are made up of a lot of extracellular matrices, which includes collagen, fibronectin, and proteoglycan. The tumors are typically surrounded by a thin pseudo capsule made of squeezed muscle fibers and areolar tissue. Leiomyomas have the potential to grow and significantly deform the uterine cavity or surface. Despite being benign, they frequently cause severe symptoms such as anemia and heavy, irregular, and extended menstrual flow. Numerous other medical conditions, such as infertility, recurrent abortion, and preterm labor, have also been linked to uterine leiomyomas. The health of women is significantly impacted by these clinical problems. The most common reason for the more than 600,000 hysterectomies carried out in the United States each year is uterine leiomyomas, and

this major surgery is linked to morbidity and mortality as well as having a significant financial impact on health care delivery systems that is estimated to be around 2.2 billion dollars annually [3]. Treatment methods might be either medicinal or surgical, depending on the severity of the symptoms. Hormonal therapy comprises gonadotropin-releasing hormone agonists, single-agent progesterone suppression, and oral contraceptives. Non-hormonal alternatives, including non-steroidal anti-inflammatory medications and tranexamic acid, are frequently coupled with hormonal treatment. Although the goal of medical management is to decrease menorrhagia, these treatments seldom affect the size of leiomyomas and do not increase fertility[4]. Consequently, surgical management is required. Leiomyomas are known to grow in response to both estrogen and progesterone stimulation, and their prevalence rises throughout the reproductive years and is noticeably reduced after menopause. However, the etiology of leiomyomas in adolescents and adults is mostly unknown[5].A

pelvic examination is the first step in examining a lady who has a pelvic mass. Due to its accuracy, affordability, and accessibility, ultrasonography should be used as the initial diagnostic adjunct if leiomyoma is suspected. Magnetic resonance imaging (MRI) is the gold standard for assessing pelvic soft tissue tumors, although it is not commonly used in areas with limited resources. It is not advised to scan using a computed tomography (CT) machine to assess uterine leiomyomas. Figures [6-8]. Hysteroscopy has become a useful method of myomectomy due to developments in minimally invasive gynecological procedures and training in the Caribbean, which have also improved the morbidity of women undergoing leiomyoma surgery there Figures 4, 5. Treatment of choice as these leiomyomas may cause infertility and in the presence of pregnancy they may affect the outcome. However, other approaches like vaginal and laparoscopic hysterectomies are associated with less postoperative complications and quicker recovery of the patient as compared to laparotomy / abdominal approach. Myomectomy is performed through laparotomy, laparoscopy or hysterectomy or have a desire to retain their fertility. However, it causes significant perioperative morbidity. Myolysis including mono or bipolar cautery, Nd - YAG laser vaporization or cryotherapy is currently experimental and is associated with risk of recurrence[7].

Leiomyomas can really grow very big if not treated and can present with pressure effects as well as other coagulation disorders as a result of compression on pelvic veins. They can cause increased intrabdominal pressure leading to divarication of recti as well as increase in any incisional or umbilical hernias if untreated.

5. Conclusion

A fibroid can grow to a large size as exemplified in this case. Different clinical manifestations can be expected in cases of giant uterine tumors according to which other organs are secondarily affected. Numerous difficulties may be encountered in the evaluation and removal of these tumors. A combined team consisting of gynecologic, general, and plastic surgeons is necessary for an optimum outcome for the management of huge uterine leiomyomas [8].

References

1. Lim PT, Tan CH, Chia HL, Phoon J. Management of a giant uterine leiomyoma. *BMJ Case Rep.* 2018;2018:bcr2017224052.
2. Ashindoitiang JA, Canice Nwagbara VI, Edet EE. Large subserous uterine leiomyoma presenting as intraabdominal tumor: A case report. *Rare Tumors.* 2024;16:20363613241285089.
3. Evans AT, Pratt JH. A giant fibroid uterus. *Obstet Gynecol.* 1979;54:385-6.
4. Nagai T, Takai Y, Akahori T. Highly improved accuracy of the revised PREoperative sarcoma score (rPRESS) in the decision of performing surgery for patients presenting with a uterine mass. *Springerplus.* 2015;4:520.
5. Chay J, Koh M, Tan HH. A national common massive transfusion protocol (MTP) is a feasible and advantageous option for centralized blood services and hospitals. *Vox Sang.* 2016;110:36-50.
6. Al-Hendy A, Myers ER, Stewart E. Uterine fibroids: burden and unmet medical need. *Semin Reprod Med.* 2017; 35(6): 473-480.
7. Priyadharshinee G, Sahu TK, Chavadi C. Giant fibroid mimicking a gastrointestinal stromal tumor: a diagnostic dilemma. *Cureus.* 2023; 15(3): e35883.
8. Heinonen HR, Sarvilinna NS, Sjöberg J. MED12 mutation frequency in unselected sporadic uterine leiomyomas. *Fertil Steril.*