

Giant uterine leiomyoma (5 kg) with bunch of 45 fibroids: a challenging case during covid-19 pandemic

Abstract

Leiomyomas are the most common benign tumours of the uterus, arising from the smooth muscles of the uterus but containing varying amount of fibrous tissue. These grow under the influence of oestrogen and progesterone. Fibroids undergo various types of degenerations, most common being hyaline degeneration. Most of them are asymptomatic. Large fibroids may cause pain, pressure symptoms or menstrual dysfunctions. Large fibroids are rare and require expertise to operate them to avoid blood loss, prevent inadvertent injury to ureters, bladder, bowel and the surrounding vital structures. Here we present a case of a large uterine fibroid, disguised as a retroperitoneal mass of an unknown origin, which was managed with expert surgical skills.

Keywords: giant, leiomyoma, COVID 19, pandemic, rare, multiple uterine fibroids

Volume 12 Issue 4 - 2021

Rajshree Dayanand Katke,¹ Pushpa C,² Sonia Asrani²

¹MD Obstetrics and Gynaecology, FMAS, FICOG, Professor and Head of the Department, Department of Obstetrics and Gynaecology, Grant Government Medical College, India

²Junior Resident, Department of Obstetrics and Gynaecology, Grant Government Medical College, India

Correspondence: Dr. Rajshree Dayanand Katke, MD Obstetrics and Gynaecology, FMAS, FICOG, Professor and Head of the Department, Department of Obstetrics and Gynaecology, Grant Government Medical College, Mumbai, India, Email drrajshrikatke@gmail.com

Received: June 22, 2021 | **Published:** July 02, 2021

Introduction

Leiomyomas are the most common tumours of the female genital tract. They are estimated to occur in 20% to 50% of women, with increased frequency during the later reproductive years.^{1,2} Fibroids are the most common benign tumours of the uterus, arising from the smooth muscle of the uterus but containing varying amount of fibrous tissue. Leiomyomas have a progenitor (monoclonal) origin. In case of multiple leiomyomas, each myoma arises from independent myocyte. These may be intramural, subserosal, submucosal, cervical or broad ligament fibroids. The incidence of cervical fibroid is also showing an increasing trend. Fibroids are usually asymptomatic but 30% of the patients affected by fibroids present with symptoms such as menstrual dysfunctions, pelvic pain, dyspareunia, urinary symptoms, constipation, dyschezia, intestinal obstruction, varicose veins, vaginal discharge, infertility, abortions, pregnancy complications.²⁻⁴ A variety of management approaches for myomas based upon age, symptoms, size, sites of fibroid and fertility status are available.³ Surgical treatments for myomas prove to be invasive and expensive, but they lead to better quality of life.⁴ Operative strategy of myoma is decided according to size, number, and location of the fibroids. Giant uterine leiomyoma are extremely rare and can be mistaken for ovarian or retroperitoneal cysts and neoplastic tumours.^{5,6} Symptomatic fibroids might require hysterectomy by laparotomy or laparoscopy. Another possible treatment modality is surgical myomectomy by laparotomy, laparoscopy or hysteroscopy. Another alternative is to administer a preoperative treatment, in the form of gonadotropin-releasing hormone agonist or, preferably, Ulipristal Acetate, in order to reduce the volume of the myoma and the uterine bleeding. Non-surgical options like: expectant management, medical treatment, radiological interventions such as uterine artery embolization, High Intensity Focused Ultrasound (HIFU) are available as add-ons to the classic surgical treatments. In the case of giant fibroids, there is limited scientific evidence on prescribed treatment in terms of conservative

techniques. The increase in size often makes it difficult to perform the usual surgical techniques and hence a total or even a subtotal hysterectomy becomes mandatory.

Case report

A 43year old female, married since 24 years, parity 3, living 3, presented to the obstetrics & gynaecology department of Grant Government Medical College & Sir J.J. Group of Hospitals, Mumbai with complaints of pain and mass in abdomen since 4 months.

On examination, her General condition was fair, Afebrile, Pulse: 80 beats/min, Blood pressure: 130/80mmHg, Respiratory, Cardiovascular & Central nervous systems were within normal limits.

Per abdominal examination revealed a mass of approximately 28 weeks, arising from the pelvis extending to hypochondriac region, with restricted mobility, hard in consistency, bosselated mass was felt. On per speculum examination, cervix & vagina appeared to be healthy.

On per vaginal examination, per abdomen findings were confirmed. Cervix was taken up; bilateral fornices were obliterated. Uterus was not felt separately from mass. On per rectal examination, rectal mucosa was found to be free.

Investigations on admission: Haemoglobin: 10.9g%, TLC: 9900/mm³, Platelets: 4,70,000/mm³

PT: 17.1 sec, INR: 1.39, Sr. Creatinine: 0.6mg%, Sr. Bilirubin: 0.5mg%

Ultrasonography of the abdomen & pelvis was suggestive of multiple well defined hypoechoic lesions with internal hypoechoic areas seen arising from the uterus. Uterus not seen separately from the lesions. The largest lesion measures 12.5x10x13cms in the fundal region with increased internal vascularity within. Few cystic areas

seen within the lesions suggestive of degenerations. Endometrial thickness 13mm and displaced by the lesions. Findings suggestive of intra mural and sub serosal uterine fibroids with degeneration.

Tumour markers

Beta HCG: 0.4mIU/ml, Ca 19-9: 2.6U/ml, CEA: <0.5ng/ml, AFP: 0.57ng/ml, Ca 125: 31U/ml, LDH: 457U/L.

12/01/2021: Contrast Enhanced Computed Tomography (CECT) imaging of the abdomen & pelvis was suggestive of heterogeneously enhancing multilobulated soft tissue lesion 13.5x19.1x22cms arising from the uterus with non enhancing hypodense areas within, suggestive of areas of cystic degenerations. Features suggestive of uterine leiomyomas. Possibility of leiomyosarcoma cannot be ruled out. Right ureter is free and left ureter is compressed for a length of 1.7cm (Figure 1).



Figure 1 Computerised tomography abdomen + pelvis showing multilobulated soft tissue lesion 13.5x19.1x22centimeters suggestive of leiomyoma.

Bilateral Double J stenting done in view of ureteric compression. Decision for exploratory laparotomy was taken.

20/01/2021: Intra-operatively uterus of size was around 34 to 36 weeks seen with bosselated appearance with multiple uterine fibroids; bilateral adnexa clear.

The mass was huge and occupying the whole of the abdomen, extending from pelvis to the xiphisternum. The round ligaments were identified and a fine dissection of ureters was done bilaterally. Total Abdominal Hysterectomy with bilateral salpingectomy was done. All the pedicles were taken out under supervision. Specimen was removed weighing 5kilograms. Specimen sent for histopathology. Both the ovaries was preserved. Because of the giant mass, the rectus sheath was thinned out and hence deficient. The rectus sheath was strengthened and reconstructed using the double breast technique (Figures 2-4).

As much as 45 fibroids were dissected out from the specimen. Post-operative course in the hospital was uneventful for the patient. Blood loss was minimal and frozen section was sent suggestive of leiomyoma.

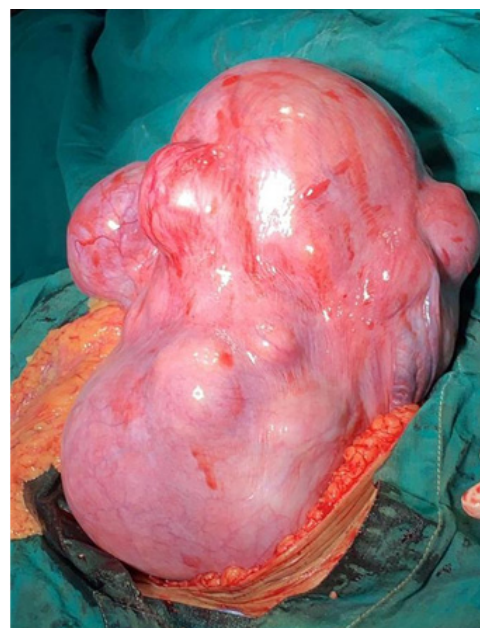


Figure 2 Intra operative picture showing 34 – 36 weeks size uterus with a bunch of 45 fibroids.

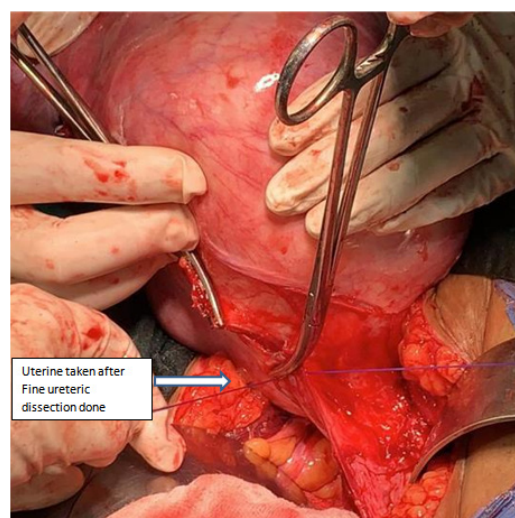


Figure 3 Intra operative picture showing highly vascular uterine mass and uterine taken after fine ureteric dissection.



Figure 4 45 fibroids dissected and removed.

Histopathology report was suggestive of Proliferative endometrium with multiple intramural & subserosal leiomyomas with chronic endocervicitis with acute on chronic bilateral salpingitis.

Discussion

Fibroids are the most common benign tumours of the uterus. Most of the patients remain asymptomatic but in patients with large fibroids mostly present with pressure symptoms depending on location of fibroid. The symptoms include a wide range of possibilities such as: menometrorrhagia, pelvic pressure, urinary symptoms due to compression of urethra with hydronephrosis or bladder compression with symptoms of urgency and urge incontinence, oedema, or pelvic varices, thrombosis or compression symptoms of sacral plexus.⁷ Other symptoms described include unusual pulmonary hypertension, respiratory failure, pseudo-Meigs syndrome, difficulty to walk, tiredness and arthrogryposis in pregnancy.⁸⁻¹⁰

The treatment of uterine fibroids may involve one of the following approaches or a combination of: expectant management, surgical management, medical management, myolysis and selective uterine artery embolization.^{7,8} The chosen approach is to be individualized for every patient. These days, surgical management is the most frequently preferred one. But it is important to treat women with large leiomyomas in highly specialized gynaecological or oncological surgery departments. There are reports of fibroids found in the retroperitoneal space, having to make the differential diagnoses with other masses found in the same area, which sometimes could be malignant, for example: the mucinous cystadenoma, cystic lymphangioma, cystic mesothelioma and Mullerian cyst. In other cases, the tumours could also be benign such as urinomas and lymphoceles. Myomas have also been described in Retzius space.⁹ Gynaecological trans-vaginal ultrasound is the technique of choice for the diagnosis because it is the most cost-effective with perfect display. If the fibroid exceeds the pelvis, abdominal ultrasound is required to view the complete mass. Some fibroids present as large pelvic masses posing a diagnostic difficulty to differentiate from large ovarian tumours. As leiomyomas enlarge, they may outgrow their blood supply resulting in various degenerations like hyaline, cystic, myxomatous, calcific, red degeneration.¹¹ Although fibroids usually have a characteristic ultrasound appearance, in cases of huge size and in cases of degenerations, it may create some confusion at the diagnosis.¹² Radiological investigations can be of help, but intraoperative surprises are not uncommon. Studies have shown that round ligament is the guiding factor to go in the anatomical plane in cases of huge fibroids and guides us for further surgeries.¹³⁻¹⁵

Conclusion

Giant uterine leiomyomas are extremely rare. They often mimic adnexal mass and radiological investigations play an important role to solve the diagnostic dilemma. In such huge fibroids anatomy is distorted, so great surgical expertise with a sound anatomical knowledge is required for fine dissection to avoid injuries to adjacent structures and successful outcome.

Acknowledgments

None.

Funding

None.

Conflicts of interest

None of the authors have any conflict of interest with regard to this article.

References

1. Machupalli S, Norkus EP, Mukherjee TK, et al. Abdominal Myomectomy Increases Fertility Outcome. *Gynecol Obstet*. 2013;3:144.
2. Chen I, Lisonkova S, Joseph KS, et al. (2014) Laparoscopic versus abdominal myomectomy: practice patterns and health care use in British Columbia. *J Obstet Gynaecol Can*. 2014;36:817–821.
3. Chapron C, Fauconnier A, Goffinet F, et al. Laparoscopic surgery is not inherently dangerous for patients presenting with benign gynaecologic pathology. Results of a metaanalysis. *Human Reproduction*. 2002;17:1334–1342.
4. Mettler L, Schollmeyer T, Tinelli A, et al. Complications of uterine fibroids and their management, surgical management of fibroids, laparoscopy and hysteroscopy versus hysterectomy, haemorrhage, adhesions, and complications. *Obstetrics and Gynecology International*. 2012;2012:791248.
5. Vandermeer FQ, Wong-You-Cheong JJ. Imaging of acute pelvic pain. *Clin Obstet Gynecol*. 2009;52:2–20.
6. Roy C, Bierry G, El Ghali S, et al. Acute torsion of uterine leiomyoma: CT features. *Abdom Imaging*. 2005;30:120–123.
7. Evans III AT, Pratt JH. Agiant fibroid uterus. *Obstet Gynecol*. 1979;54:385–386.
8. Novak ER, Woodruff JD. Myoma and other benign tumors of uterus. In: Novak ER, Woodruff JD, editors. *Novak's gynecologic and obstetric pathology*. Philadelphia: WB Saunders; 1979:260–267.
9. Pepe F, Pepe P, Rapisarda F, et al. Giant leiomyoma of the retzius space: a case report. *Case Reports in Obstetrics and Gynecology*. 2013;2013:371417.
10. Calaf J, Arqué M, Porta O, et al. The fibroid as clinical problem. *Medicina Clinica*. 2013;141:1–6.
11. Ezugwu EC, Iyoke CA, Ezugwu FO, et al. Successful pregnancy following myomectomy for uterine fibroid giant in an infertile woman. *Journal of Reproduction & Infertility*. 2014;15:233–236.
12. Katke RD. Large (7.2 kg) subserosal fibroid with monkenberg calcification in a postmenopausal women : Extremely rare case with review of literature. *Gynecol Obstet case report*. 2016;2:2.
13. Katke RD. Sequelae of cystic degeneration of huge fibroids mimicking like endometrioma in one case and ovarian neoplasm in two cases. *The South East Asian Journal of Case reports And Review*. 2014;3:764–779.
14. Shirish SS, Rajshri S. Surgical importance of round ligament. *Journal of Gynecol Surg*. 1999;15:163.
15. Rajshree Dayanand Katke. Huge broad ligament fibroid mimicking sarcoma of uterus: A case report & review of literature. *J Midlife Health*. 2017;8(4):191–193.