

Successful Laparoscopic Myomectomy in Giant Myoma

Abstract

A giant uterine fibroid is a rare tumor of the uterus. Uterine leiomyomas are the most common type of a benign tumor that arises from the female pelvis. Uterine leiomyoma is a smooth muscle tumor. Its prevalence is more in reproductive age group and decreases after menopause. They are rare in adolescents. In reproductive age group, the preferred mode of management of fibroid is myomectomy. For large myomas, the role of laparoscopic myomectomy is still controversial. Laparoscopic myomectomy for giant myoma is technically challenging and should be performed by an experienced surgeon. We herein report the case of a 32-year-old unmarried girl who visited our hospital with the complaint of progressive abdominal distension and discomfort from the past 4–5 months. Ultrasonography was done, and it showed a markedly enlarged uterus containing a 16 cm × 17 cm subserosal fibroid and 3 cm × 4 cm intramural fibroid. Magnetic resonance imaging suggestive of three myoma, one sub serosal myoma at fundal region of 11.2 cm × 9.6 cm × 14.2 cm, second intramural fibroid in the lateral wall of the uterus of 3 cm × 3 cm and a small submucosal fibroid of dimension 1.1 cm × 0.9 cm × 0.8 cm. Laparoscopic myomectomy was planned and completed successfully with no intra- and postoperative complications. Intraoperative finding was suggestive of 20 cm × 20 cm × 18 cm fundal fibroid and 2 cm × 3 cm lateral wall fibroid. The defect was closed using V-lock suture in two layers. The myoma was removed by tissue morcellator. In the literature, only a few cases reported of successful removal of giant myoma by laparoscopy.

Keywords: Giant myomas, laparoscopy, myomectomy

Introduction

Uterine leiomyomas are the most common type of a benign tumor that arises from the female pelvis. Uterine leiomyomas are smooth muscle tumors.^[1,2] The fibroid is 2–3 times more common in black as compared to white women.^[3] It is more prevalent in females of reproductive age group, decreases after menopause, and is rare in adolescents.^[4,5] On the basis of location, leiomyomas are classified in submucous, subserous, and intramural. Out of three subserous are usually asymptomatic.^[1] Almost 50% of patients are asymptomatic and some may have symptoms such as menorrhagia, dysmenorrhea, abdominal swelling, and pressure symptoms.^[3] Asymptomatic myoma does not require treatment. The treatment of symptomatic myomas depends on many criteria such as age, size of the myoma, its location, and desire to preserve fertility.^[6] The management of leiomyoma can be hysterectomy or myomectomy; it depends on the future fertility issues.

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Myomectomy is mostly preferred in women of reproductive age group.^[4] The route can be open or laparoscopic. For large myomas, the role of laparoscopic myomectomy is still controversial.^[6] Advantages of laparoscopic myomectomy are several such as shorter stay in the hospital, less postoperative pain, early recovery, and less postoperative adhesions, but there are many technical issues in laparoscopic myomectomies such as hemostasis and uterine closure, and the most important is tissue retrieval.^[7] Laparoscopic myomectomy for giant myomas is technically challenging and should be performed by an experienced surgeon. There are only a few case reports in the literature regarding laparoscopic removal of giant myoma. Herein, we present the case of a 32-year-old patient with giant uterine myoma that was successfully managed by laparoscopic myomectomy.

Case Report

A 32-year-old unmarried woman presented to our hospital with a complaint of progressive distension of the abdomen and discomfort from the past 4–5 months. Her

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menstrual cycle was normal and attended menarche at the age of 13 years. There were no associated changes in bowel and bladder habits. She had no history of nausea, vomiting, weight loss, or anorexia. There was no significant medical, surgical, and family history. On per abdomen a 26 weeks lump was palpable [Figure 1]. Ultrasonography was done, and it showed a markedly enlarged uterus containing a 16 cm × 17 cm subserosal fibroid and 3 cm × 4 cm intramural fibroid. Bilateral ovaries were not visualized magnetic resonance imaging (MRI) suggestive of subserosal fundal myoma of 11.2 cm × 9.6 cm × 14.2 cm, 3 cm × 3 cm intramural fibroid in the lateral wall of the uterus and a small submucosal fibroid of dimension 1.1 cm × 0.9 cm × 0.8 cm. Endometrium showed an 8-mm thickness. Bilateral ovaries appear normal with multiple small follicles. After discussion with the patient, the laparoscopic route of myomectomy was chosen. A veress needle was introduced supraumbilically and pneumoperitoneum was created. The abdominal pressure was raised to 12mm HG. For telescope, Ten-millimeter port was created and under vision two 5mm accessory port was created on the right and left quadrant. The intraoperative finding was suggestive of a giant myoma arising from the uterine fundus and occupying the entire abdomen [Figure 2]. It was a big challenge to manipulate such a giant myoma. Twenty units of vasopressin was diluted in 200 ml saline and was injected into the myometrium until the blanching was achieved. On the highest point of the largest myoma transverse incision was given with the help of harmonic and after that dissection done in between the cleavage plain to identify the myoma. Myoma was stabilized with the help of myoma screw and enucleation accomplished by standard traction and countertraction without disturbing endometrial cavity. To achieve hemostasis, bipolar cautery was used. The defect was closed in two layers with the help of Covidien V-Loc 180 Barbed Sutures USP 0. Similarly, lateral wall fibroid was enucleated and sutured. The morcellator was used to remove the myoma, and for that, the left 5-mm port was converted to 10 mm. The overall time taken for surgery was 130 min. The intraoperative blood loss was minimal. The weight of the specimen retrieved was 2000 g [Figure 3]. The intra- and postoperative periods were uneventful. The final histopathological report was suggestive of uterine leiomyoma. The patient was discharged on the 2nd postoperative day. The patient is doing well 2 months post follow-up.

Discussion

Uterine leiomyomas are smooth muscle tumors and the most common type of a benign tumor that arises from the female pelvis. Mostly, myomas are asymptomatic and small, but in some cases, they can reach >10 cm in size. Asymptomatic myomas usually require no treatment. For symptomatic myoma, hysterectomy is a definitive solution, but for those women of reproductive age group, infertility, and who wish to conserve their uterus, laparoscopic myomectomy remains



Figure 1: Preoperative image of lump abdomen



Figure 2: Laparoscopic finding showing large myoma filling the abdominal cavity



Figure 3: Morcellated myoma weighing 2 kg

the gold standard.^[6] Adenomyosis, hematmata, and uterine cancer are the differential diagnoses of uterine leiomyomas. Giant leiomyomas sometimes mimic ovarian malignancy. Various imaging studies such as ultrasound, computed tomography, and MRI are available to determine the extent of the mass and its likelihood of malignancy.^[3] Semm *et al.* performed the first laparoscopic myomectomy.^[7] There are only a few cases reported in the literature regarding successful removal of myoma by laparoscopy, and the

largest myoma removed with laparoscopy is of 21 cm.^[4] The advantages of laparoscopic myomectomy over abdominal myomectomy are a short hospital stay, early recovery, fewer adhesions, minimal blood loss, and better cosmetic value.^[7] There are many difficulties while performing laparoscopic myomectomy such as the mobilization of the uterus, finding proper cleavage, and suturing of the defect, and the most important is the removal of the specimen. For removal of the specimen, a morcellator can be used, but one should be aware of the Food and Drug Administration warning and litigation arising from the use of morcellator devices with claims of intraperitoneal dissemination of cancerous cells.^[4] To prevent the risk of disseminating occult sarcomatous leiomyoma fragments in the abdominal cavity, in-bag morcellator techniques have been devised.^[6] Placement of trocar is very important in case of large myomas reaching up to the umbilicus. It is suggested to place trocar superior to umbilicus that is high epigastric port placement technique for such type of giant myomas.^[7] This case emphasizes that size does not pose a limit to remove these gigantic myomas laparoscopically when surgical expertise and good anesthesia facility is available.

Conclusion

This case shows the safety and efficiency of minimally invasive surgery, and it emphasizes that size is not the limit for laparoscopic myomectomy. Laparoscopic myomectomy requires an expertise surgeon and good energy sources. Laparoscopic myomectomy is technically challenging and difficult for giant myomas and should be performed by an experienced surgeon.

Consent

Written and informed consent was obtained from the patient for publication of this case report.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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