

## CASE REPORT

# Laparoscopic Myomectomy of a 34 Weeks Size Myoma: 'Exhausting but Satisfying'

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## ABSTRACT

Uterine leiomyomas are the most common benign tumors affecting reproductive age women. The symptomatic spectrum varies from large asymptomatic fibroids to smaller ones causing all sorts of menstrual problems. With the advent of minimally invasive surgery, laparoscopic myomectomy is the preferred approach to many of these myomas depending on the size, site and number as recommended by the standard bodies.

**Aims and objectives:** To describe one of the largest myoma operated laparoscopically using conventional technique.

**Background:** The size and type of myoma represent the best predictors of surgical difficulties and possible intraoperative complications. Intramural myomas > 8 cm and subserosal myomas > 12 cm are considered challenging to operate laparoscopically. Till date, to the best of our knowledge the largest myoma operated laparoscopically is around 30 cm.

**Case report:** Authors report a case of 29 years old unmarried girl who presented with abdominal distention and on examination had a abdominopelvic mass of 34 weeks gravid uterus size. Ultrasound revealed a very large intramural fibroid arising from the left wall close to the fundus with a large submucosal component. An uneventful laparoscopic myomectomy was done.

**Conclusion:** Laparoscopic myomectomy is surely a safe and attractive alternative to treat large myomas with less post-operative pain, shorter hospital stay and equivalent pregnancy outcomes. The authors believe that with required skills, experience, and improved technologies for tissue retrieval, the size may not be a limiting factor for laparoscopic myomectomies.

**Keywords:** Laparoscopic myomectomy, Large myoma, Morcellation.

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## INTRODUCTION

Uterine leiomyomas are the most common benign tumors affecting reproductive age women with a prevalence ranging from 20 to 50%.<sup>1</sup> The symptomatic spectrum varies from abnormal uterine bleeding, chronic pelvic pain, dyspareunia, bowel/bladder dysfunctions and infertility to very large fibroids causing abdominal distension. However, 70% of women remain asymptomatic until the fibroids are caught accidentally on an ultrasound done for nongynecological symptoms.<sup>2</sup> Small symptomatic leiomyomas can be treated medically but larger myomas need surgical excision as a definitive mode of treatment and also for ruling out chances of malignancy.

With the advent of minimally invasive surgery in the field of gynecology, laparoscopic myomectomy is the preferred approach to many of these myomas, provided appropriate surgical skills are available. Fifty years back, laparoscopy was performed only for subserosal myomas, but now, the general consensus say that around 8 to 10 cm size intramural fibroids can be removed laparoscopically but the number should not exceed four.<sup>3</sup> The biggest concerns against doing laparoscopic myomectomy is a theoretical increased risk of uterine rupture during pregnancy and labor probably due to excessive coagulation, intramural hematoma formation and difficulty in multilayer closure of the uterine defect.

## CASE REPORT

A 29-year-old unmarried girl with an unremarkable medical and surgical history presented to us with chief complaints of abdominal distension and weight gain. There were no menstrual complaints or any bowel or bladder difficulties. Abdominal examination revealed a large abdominopelvic mass of 34 weeks gravid uterus size, with a smooth surface and regular borders and restricted mobility. Ultrasound findings were suggestive of a large single intramural fibroid of size 290 × 230 × 110 mm, arising from the left wall close to the fundus along with a large submucosal component. The patient was unmarried so we planned a conservative surgery by laparoscopic route.

An uneventful laparoscopic myomectomy was done. Abdominal access was gained through a Palmer's point entry and pneumoperitoneum was created. One 10 mm

supraumbilical trocar was inserted 2 cm below the xiphisternum and two 5 mm left lateral ports were inserted (left upper quadrant and 8 cm below it) under direct vision. A large fundoposterior intramural fibroid was seen and a horizontal incision was given on the most dominant area using harmonic ACE device. Enucleation was performed by traction and counter-traction method along with bipolar coagulators and laparoscopic scissors. After excising the myoma from its bed, hemostasis was assured and bleeding points were coagulated followed by obliteration of the myoma bed using intracorporeal interrupted sutures. Retrieval of the myoma was done piecemeal using 15 mm morcellator with careful removal of all the pieces. Total weight was around 2.054 Kg. Postoperative period was uneventful and patient remained symptom free for an year, thereafter, she was lost to follow-up. Histopathological examination revealed leiomyoma.

## DISCUSSION

Laparoscopic myomectomy is increasingly being accepted as the ideal approach for treating subserosal and intramural myomas because of its inherent advantages of lower intensity of postoperative pain, shorter recovery time, shorter hospital stay, less ileus time and lesser postoperative adhesions.<sup>4</sup> Pregnancy rates and uterine rupture risk following laparoscopic myomectomy is comparable to abdominal procedure, i.e. 54 and 1% respectively,<sup>5</sup> thus making it a feasible option in young girls who also wish for a cosmetically better scar. The size and type of myoma represent the best predictors of surgical difficulties and possible intraoperative complications. Intramural myomas > 8 cm and subserosal myomas > 12 cm are considered challenging to operate laparoscopically as very large myomas are not only time consuming as they limit the space available for manipulation of the instruments but are associated with more blood loss which leads to conversion to laparotomy. Various methods have been described to reduce blood loss while operating on large myomas like preoperative GnRh injections, vasopressin injection, bilateral uterine artery ligation and uterine artery embolization but have their own limitations of availability and acceptability. The authors here describe a case of a 32 cm large myoma operated laparoscopically using conventional technique, which is till date, to the best of our knowledge, largest ever described. Sinha et al<sup>6</sup> describe a case of large multiple myomas with a cumulative weight of 2.3 Kg and Madhuri et al<sup>7</sup> described a case of 30 cm large myoma where they used uterine artery embolization as the mode to reduce blood loss. In the present case, none of the above techniques were utilized but the blood loss was not significant.

Laparoscopic morcellation requires training and care by the surgical team to avoid potentially dangerous vascular and visceral injuries. With the advent of power morcellation, retrieving such huge myomas has become easy, but nowadays power morcellation has come under intense scrutiny due to recently reported cases of dissemination of unexpected leiomyosarcoma but with advances in contained power morcellation techniques, speed as well as safety of specimen removal is expected to increase. Thus, authors stress on the fact that staying in accurate surgical planes, required skill and patience are the keys to success in managing almost all myomas laparoscopically irrespective of their size and number.

## CONCLUSION

Laparoscopic myomectomy is surely a safe and attractive alternative for the treatment of large myomas, especially in young women who wish to preserve and enhance fertility, at the same time want a minimally invasive approach. It is a universally accepted fact that, laparoscopy provides a more rapid recovery, less blood loss and fewer adhesions compared to an open approach. Pregnancy rates are comparable to those expected with abdominal myomectomy and the risk of uterine rupture during pregnancy is less than 1% if the uterus is closed appropriately. The authors believe that with required skills, experience, and improved technologies for tissue retrieval, the size may not be a limiting factor for laparoscopic myomectomies.

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