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# Laparoscopic Removal of Submucous Myoma: A Surmountable Solution

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***Abstract***

*A 38 years old multipara female presented with severe menorrhagia and dysmenorrhea with 16 weeks size uterus. The sonography showed a large submucous myoma of 6 cm. Obliteration of the endometrial cavity was found on diagnostic hysteroscopy and thus laparoscopic removal of the myoma was done safely.*

***Keywords:*** *Submucous myoma, laparoscopic myomectomy, hysteroscopic myomectomy*

## Introduction

### Background

Fibroids, also known as leiomyomas, are the most common benign smooth muscle tumours in women **[**1**]**. They are made up of muscle and fibrous tissue and can vary in size and location within the uterus. The exact cause of fibroids is unknown, but it is thought that genetics and hormones play a role. Women with a family history of fibroids, African American women, and women who are overweight are at a higher risk of developing fibroids.

They often do not cause any symptoms however, in some cases, they can cause a variety of symptoms, including heavy menstrual bleeding, pelvic pain, frequent urination, and constipation. In some cases, they may also cause infertility or complications during pregnancy. It depends on the size of the myoma which can vary from tiny to several inches in diameter, and more specifically on its location in the uterus, including the inside, outside, or within the uterine wall. Treatment for fibroids depends on the size, location, symptoms, women's age and desire for future fertility.

We are presenting a case with submucous myoma that was causing severe dysmenorrhea, menorrhagia and anaemia. Although the patient was multiparous considering her desire for future fertility myomectomy was planned.

## Case Report

A 38 years old multipara female presented with severe menorrhagia and dysmenorrhea. She had previous 2 normal deliveries and no significant past surgical history. On examination, the uterus was enlarged to 16 weeks size, smooth and mobile. The sonography showed a large submucous myoma of 6 cm occupying the endometrial cavity. MRI was done and submucous myoma of Figo class 2 was found. After a meticulous preoperative workup and improving the patient's haemoglobin by giving intravenous haematinics, she was posted for laparoscopic myomectomy.

Under general anaesthesia, first, a diagnostic hysteroscopy was performed that showed the obliteration of the endometrial cavity. Subsequently, laparoscopy was performed by placing one primary port and three accessory ports. The incision was given on the most bulging part of the myoma and intracapsular myomectomy was performed by slow and meticulous layer-by-layer dissection without opening the endometrial cavity. Methylene blue dye test was performed to confirm the integrity of the endometrial cavity and the patency of bilateral fallopian tubes. The myomectomy bed was sutured in three layers with minimal use of electro energy **[**Fig 1,2,3,4 and 5**]**. The intraoperative and postoperative period was uneventful with early ambulation and acceptance of oral feeds.

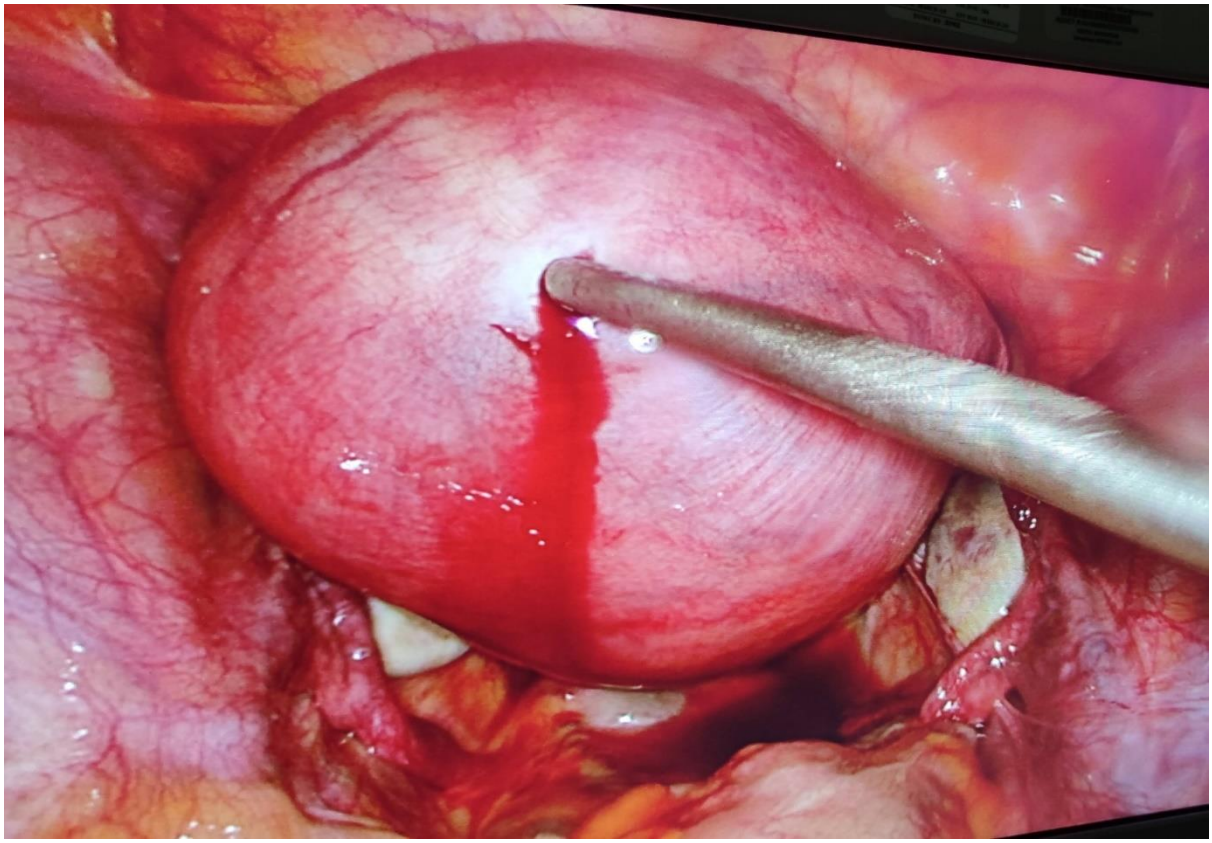

**Fig 1**

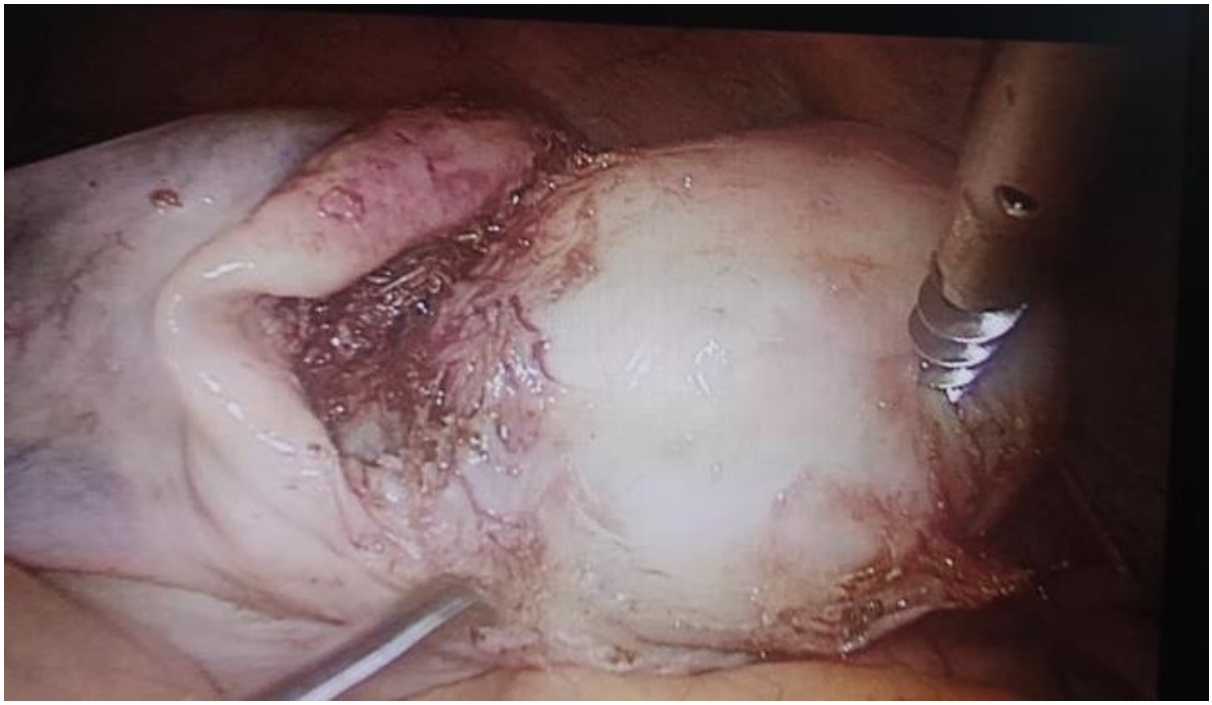

**Fig 2**

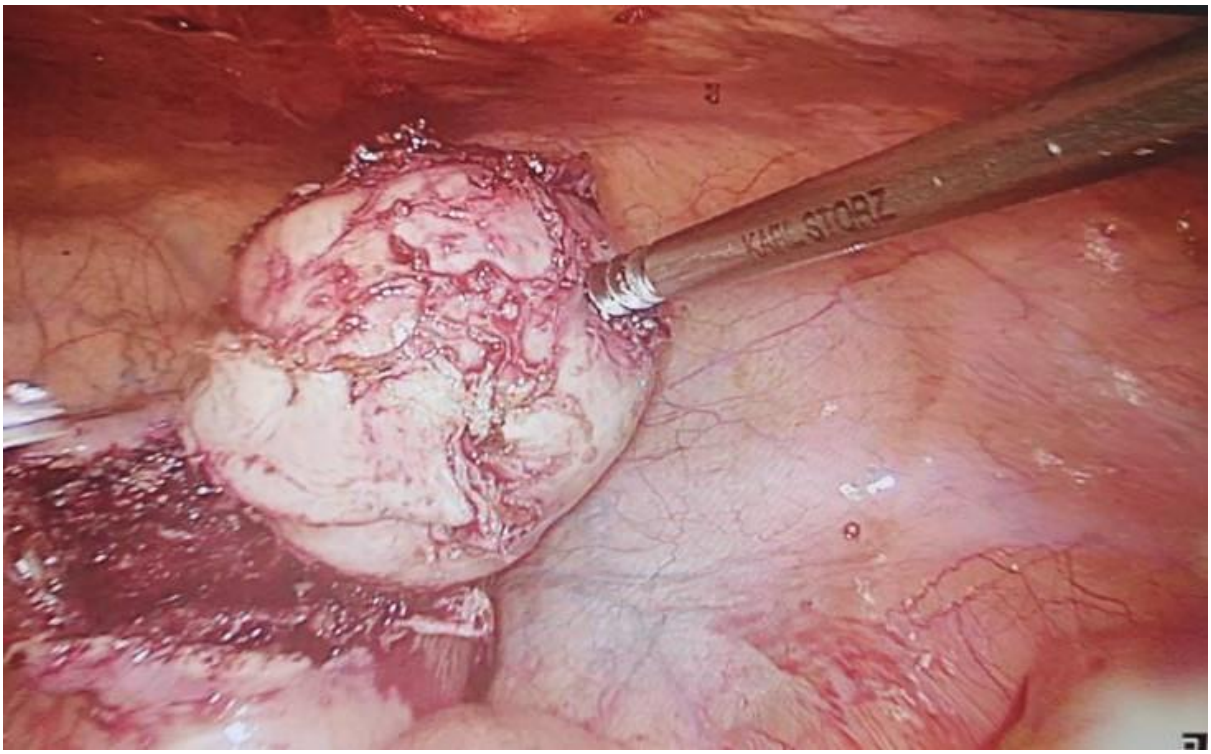


**Fig 3**

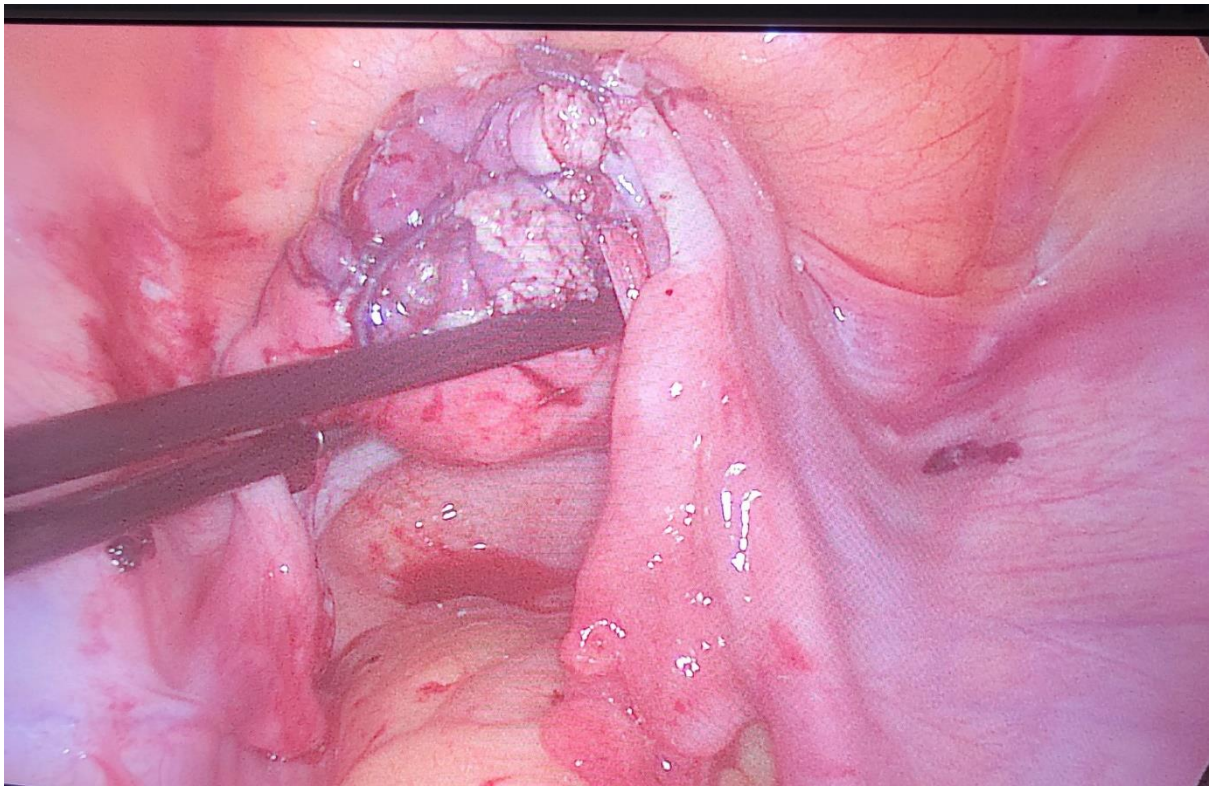

**Fig 4**

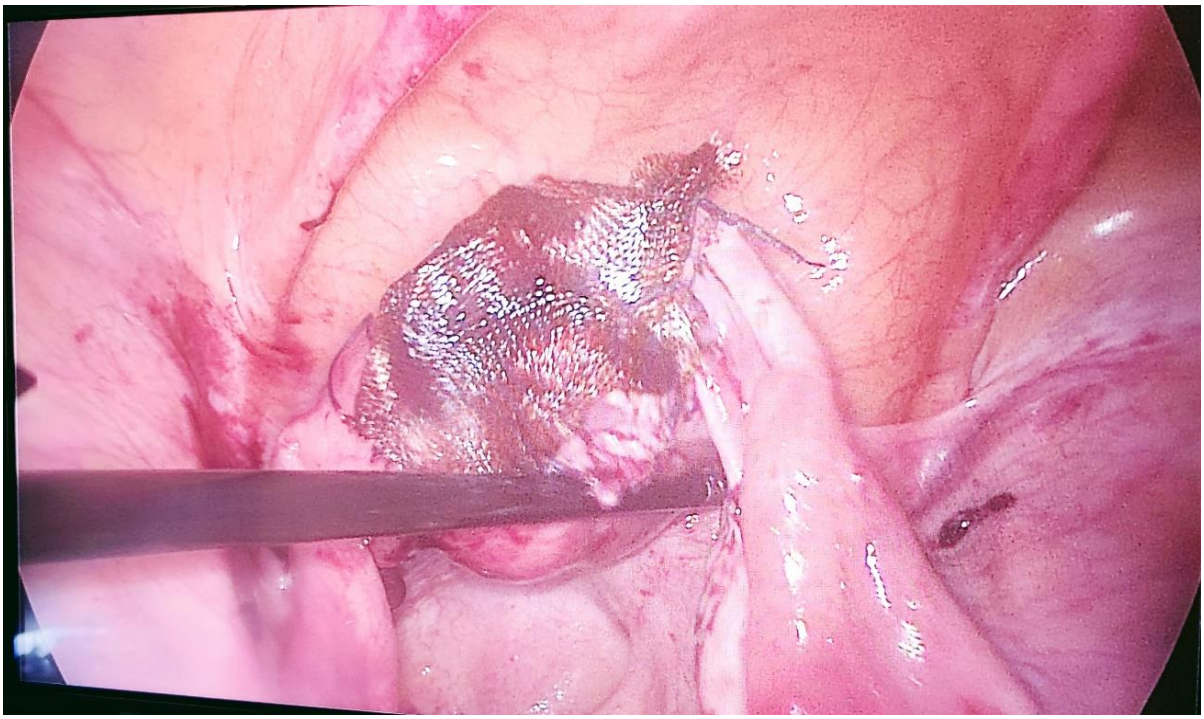

**Fig 5**

## Discussion

Intramural leiomyomas are the most common type of leiomyomas, which grow within the muscular wall of the uterus. Others are subserosal leiomyomas that grow on the outer wall of the uterus, Pedunculated leiomyomas that are attached to the uterus by a stalk or peduncle and can grow either inside or outside the uterus, cervical and broad ligament fibroids.

Submucosal leiomyomas that grow underneath the inner lining of the uterus and can protrude into the uterine cavity usually cause heavy menstrual bleeding and other symptoms.

The conventional treatment for submucous myoma is hysteroscopic resection, but it can be associated with complications like fluid overload, intraoperative bleeding and perforation **[**2**]**. Further, it is associated with 10-35 % risk of re-surgical intervention like hysterectomy or repeat myomectomy **[**3**]**. Hysteroscopic myomectomy in such cases can be very complex and can lead to increased morbidity and mortality. This is particularly witnessed in myomas of larger size and protruding more than 50% in the endometrial cavity **[**4,5**]**. So, meticulous preoperative planning is highly desirable before proceeding with such kind of complex cases.

Laparoscopic removal of submucous fibroid has been described as the preferred modality as compared to hysteroscopic removal in the case of large fibroid. But the laparoscopic approach has its own challenges like breach of the endometrial cavity, inadequate healing, and chances of uterine rupture in a subsequent pregnancy **[**6,7**]**. The factors contributing to uterine dehiscence are wrong choice of suture, suboptimal suturing, excessive use of coagulation leading to tissue necrosis and surgeon's inexperience.

## Conclusion

Minimal use of electric energy, meticulous suturing, avoiding endometrial breach and surgical expertise can lead to a successful outcome in submucous fibroid removal by laparoscopic approach and can prevent complications of hysteroscopic myomectomy.

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