

# Navigating Adenomyosis: A Case Series on Uterus - Conserving Adenomyomectomy for Enhanced Clinical Insights

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**Abstract:** Diffuse adenomyosis poses a challenging clinical scenario due to its widespread infiltration within the uterine wall, often leading to symptomatic manifestations and impacting fertility. This abstract explores the efficacy and outcomes of conservative surgery, specifically adenomyomectomy, as a uterus - saving approach in managing diffuse adenomyosis. The study reviews a cohort of patients diagnosed with diffuse adenomyosis who underwent conservative surgery aimed at excising adenomyotic lesions while preserving the integrity of the uterus. Various surgical techniques and approaches are analyzed, considering their impact on symptom relief, reproductive outcomes, and postoperative complications. Preliminary findings suggest that conservative adenomyomectomy can be a viable option for patients seeking to retain their uterus while addressing the symptomatic burden of diffuse adenomyosis. The study emphasizes the importance of meticulous surgical planning, intraoperative precision, and patient selection for optimal outcomes. This abstract contributes valuable insights into the evolving landscape of adenomyosis management, highlighting the potential of conservative surgery as a uterus - preserving strategy for those facing the challenges of diffuse adenomyosis.

**Keywords:** Adenomyosis, adenomyomectomy, conservative surgery, uterus preserving strategy

## 1. Introduction

Adenomyosis is uterine thickening that occurs when endometrial tissue, which normally lines the uterus, moves into the outer muscular walls of the uterus. The advised treatment for the severe forms of adenomyosis is hysterectomy<sup>[1]</sup> (removal of the patient's uterus), but for the patient who wishes to preserve her uterus, a novel conservative surgery referred to as 'adenomyomectomy' (removal of the abnormal tissues) can be performed<sup>[2]</sup>. This technique must be developed for reduction of spontaneous uterine rupture, adhesions and recurrence rate<sup>[2]</sup>. This study aims to investigate the safety and therapeutic outcomes of adenomyomectomy. Because of the pathogenesis of adenomyosis, surgical treatment by adenomyomectomy must involve the resection of all the altered tissues, leave the thin healthy myometrium intact, reconstruct the uterus in a specific manner with the lowest degree of adhesion and ensure that the sutures allow for efficient blood supply for the repair. Decreasing ischaemia in the endometrium by removal of the fibrosis tissue is the major purpose of the surgical method.

The aim of this study is to investigate the safety and therapeutic outcomes of a different adenomyomectomy technique with the above characteristics. The aim is to introduce this surgical technique as an alternative treatment option to hysterectomy for uterine adenomyosis, specifically for the patient who wishes to preserve her uterus and perhaps have a child in future.

## Case Series 1

A 33 years old female P1L1 complained of dysmenorrhoea and lower abdominal pain along with heavy menstrual bleeding since last 1 year was planned for myomectomy. Patient was given medical management prior to that for 3 months but symptoms did not get subsided. USG suggestive of myoma of size 6.6\*7\*6.6 cm in posterior wall of uterus. Per vaginally uterus was 14 - 16 week size with firm to soft in consistency with no any separate mass feel in the adnexa and mobility of uterus was unrestricted. Intraoperatively, however there was no clear surgical plane or whitish whorled appearance of fibroid, posterior wall of uterus was symmetrically enlarged and diagnosis of adenomyosis is made.

## Case Series 2

A 34 yrs old female P1 L1 with huge adenomyoma of size 11.4\* 9.9\*10.4 cm in posterior wall of uterus in USG was evaluated ivo lower abdominal pain and dysmenorrhoea since last 6 - 7 years. MRI confirmed diagnosis of adenomyoma.

Patient was initially was treated with LNG IUS but symptoms did not subsided with medical management

Per abdomen mass of size 14 - 16 weeks felt with side to side mobility but restricted from above downwards not separated from uterus. Per vaginally cervix was pulled up.

Patient was posted for adenomyomectomy and intraoperatively 7\*6\*7 cm adenomyotic tissue removed

### Case Series 3

A 37 years old nulligravida with a history of primary infertility complained of heavy menstrual bleeding and dysmenorrhoea since last 6 - 7 months.

Patient took medical management with antifibrinolytics and progesterone therapy for 3 - 4 months but symptoms did not get subsided.

MRI was suggestive of posterior wall adenomyoma of size 7.2\*7\*7.1 cm.

Per vaginally uterus was around 10 - 12 weeks size

Patient posted for adenomyomectomy. Intraoperatively around 6\*7\*7 cm adenomyotic tissue removed.

## 2. Surgical Technique

The surgical procedure consists of radical excision of adenomyosis (leaving a 1 cm margin of tissue above the endometrium and a 1 cm margin of tissue below the serosal surface), with subsequent triple - flap reconstruction of the uterus.

In the uterus, inj vasopressin was injected.

The enlarged uterus is bisected from the serosal surface of the fundus, in the midline and in the sagittal plane, all the way down through the adenomyosis until the uterine cavity is reached.

In this way the entire extent of the adenomyosis is clearly visible, the endometrial cavity is opened sufficiently to permit the introduction of the index finger to protect and help guide during excision of the adenomyotic tissues.

The adenomyotic tissues are excised from surrounding myometrium leaving a myometrial thickness, from the serosa above and the endometrium below, of 1 cm. Care is also taken to avoid damage to the Fallopian tubes.

The endometrial lining is then approximated with interrupted sutures of 3-0 Vicryl.

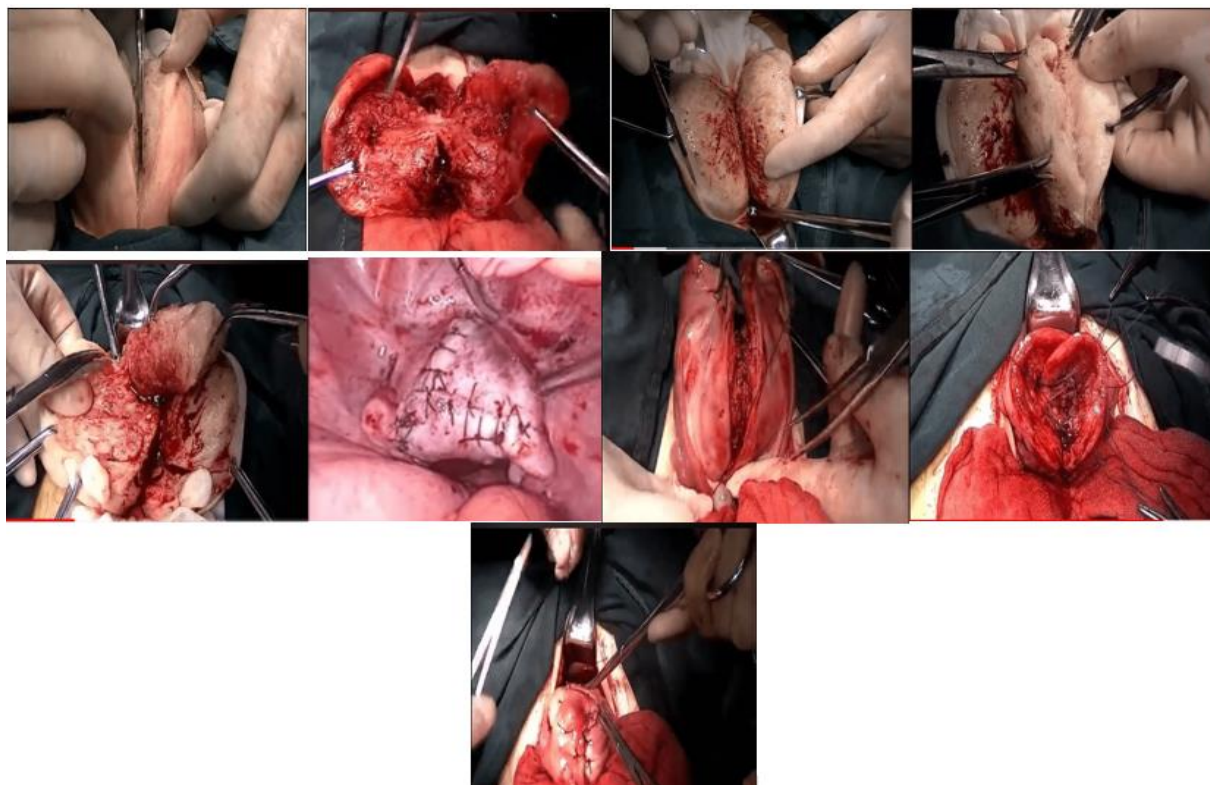
Thereafter, the myometrial defect closed with the triple - flap overlap method<sup>[1]</sup>, with care being taken to avoid overlapping suture lines. The uterus is reconstructed in the following manner.

On one side of the bisected uterus the myometrium and serosa are approximated in the antero - posterior plane with many interrupted sutures of 2-0 Vicryl.

Then the contralateral side of the uterine wall (composed also of serosa and myometrium) is brought over the reconstructed first side in such a way as to cover the seromuscular suture line.

Suture lines must not overlap; only myometrial tissue flaps overlap. The myometrium of the underlying flap must be denuded of serosa.

Remarkably, there is no significant bleeding because of the tissue pressure created by the reconstruction.



**Figure 1:** Stepwise procedure of adenomyomectomy with triple flap overlap method

**Post - operative course**

Post - operative period was uneventful.

The removed tissues were confirmed by histopathological assay.

Symptoms of dysmenorrhoea and heavy menstrual bleeding significantly reduced on visual analogue scale score of 1 - 10.

Post - operatively, after discharge from the hospital, the patients were initially followed monthly for 6 months and subsequently every 2–3 months.

For the first 6 months, the uterine blood flow was checked monthly with endovaginal ultrasonography with colour Doppler imaging and with contrast - enhanced MRI every 3 months.

Uterine blood flow in the operated area generally returned to normal within 6 months and post - operative MRI appeared remarkably normal.



**Figure 2:** USG showing pre and post - operative case of adenomyomectomy

**3. Discussion**

This study shows that adenomyomectomy can be a conservative and effective option to treat adenomyosis, especially in women who seek uterine and fertility preservation. Severe adenomyosis causes infertility, severe dysmenorrhea and hypermenorrhoea [1] [4]. Uncertainty in defining the site and extent owing to a lack of surgical plane makes it difficult to determine the extent of complete excision [3]. One constantly needs to balance between inadequate removal of the adenomyoma versus excessive healthy myometrial excision that is detrimental to wound integrity [3]. The rationale for adenomyomectomy includes that of cytoreduction, debulking to relieve the mechanical disturbances, and correcting physiological disturbances that may impair sperm transport [3]. The procedure described in this study can be an efficient procedure to treat severe adenomyosis. This method can be further modified for better outcomes and this study centre is attempting to develop safer and less invasive methods to promote the management of adenomyosis.

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