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**Wedisha Gankanda**  
Colombo South Teaching  
Hospital, Srilanka

**Madura Jayewardene**  
Colombo South Teaching  
Hospital, Srilanka

## Difficult identification of tissue planes in adenomyomectomy following GnRH agonist therapy leading to endometrial damage during Laparoscopic adenomyomectomy requiring reconstruction of Endometrial Cavity: A picture story

**Wedisha Gankanda and Madura Jayewardene**

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### Abstract

Adenomyosis and fibroids are two entities which co-exist and are sometimes difficult to differentiate by imaging. GnRH treatment can obscure the tissue planes making myomectomy or adenomyomectomy technically challenging. We report a case of difficult laparoscopic adenomyomectomy following GnRH therapy leading to significant loss of endometrium, which was successfully reconstructed using an inflated foley catheter balloon as a support.

**Keywords:** Tissue planes, denomyomectomy, laparoscopic adenomyomectomy

### Introduction

Adenomyosis is a common gynecological condition that affects women, causing menstrual disturbances, pain, and subfertility. Adenomyomectomy as an alternative to hysterectomy in severe form of this disease that has been widely performed in those who have not completed childbearing.

Whichever the surgical route, the challenges of adenomyomectomy include possible misdiagnosis Vs fibroids, defining the extent of resection, dealing with haemorrhage, and risks of uterine rupture during a subsequent pregnancy. The principles of surgery are similar to those of myomectomy, but the evolution of adenomyomectomy has been relatively unexciting with a general paucity of published data to date [1].

We describe a case of severe adenomyosis undergoing adenomyomectomy resulting in extensive damage to endometrial cavity followed by reconstruction of endometrial cavity using an inflated Foley catheter as a guide.

### Case

A 39-year-old female was investigated for sub-fertility for 5 years. Male factor subfertility had been ruled out. Hysterosalpingogram has confirmed normal endometrial contour and bilateral tubal patency. For 3 years she was experiencing regular heavy menstrual bleeding lasting six days, associated with dysmenorrhea and dyspareunia affecting her quality of life significantly. She has undergone 3 IVF cycles of no success to avail; of which two have resulted in only biochemical pregnancies. A laparoscopy and dye test revealed mild to moderate endometriosis and adenomyotic uterus, reconfirming bilateral tubal patency. After failing last IVF cycle, on further investigation she was found to have diffusely enlarged 8 weeks size adenomyotic uterus and 2 adenomyomas measuring 2x2x2.5 cm at the uterine fundus near cornual ends of the fallopian tubes on either side. She was started on GnRH agonist (Zoladex 3.6mg SC) monthly 3 cycles to alleviate pain. Severe dysmenorrhoea and dyspernia was partially responding to GnRH agonist therapy after 2 cycles she underwent laparoscopic adenomyomectomy [2]. Under local vasopressin injection, a large wedge with a base measuring 4x 2x 1 cm (at the base) was resected to include the two fundal adenomyoma using monopolar diathermy hook preserving tubal origins. The adenomyoma were thickened and fibrous hence difficult to resect using routinely used monopolar cutting current (45W),

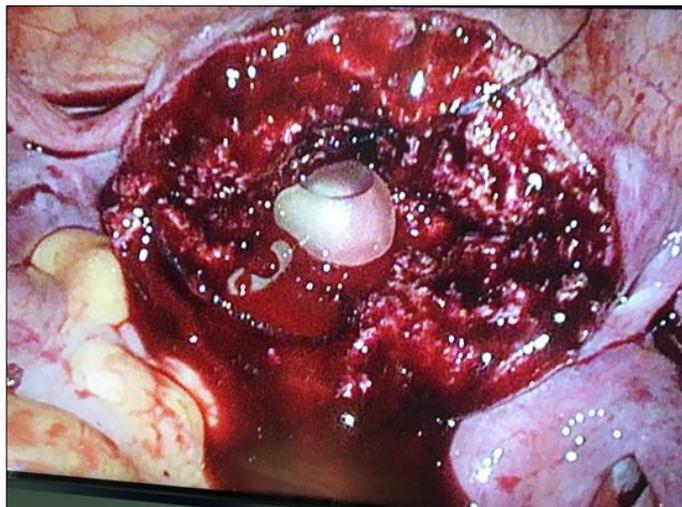
**Corresponding Author:**  
**Wedisha Gankanda**  
Colombo South Teaching  
Hospital, Srilanka

also secondary to using GnRH analogues the tissue planes were not clear and endometrial cavity was not well defined. After removing dense wedge shaped cap of the adenomyotic tissue, the endometrial cavity was not well identified except few islands of patchy endometrial linings. Endometrial cavity was reconstructed using absorbable 3.0 Vicryl barbed suture over inflated balloon of an 18G Foley catheter<sup>[3, 4]</sup>, which served the purpose of a drain as well. The

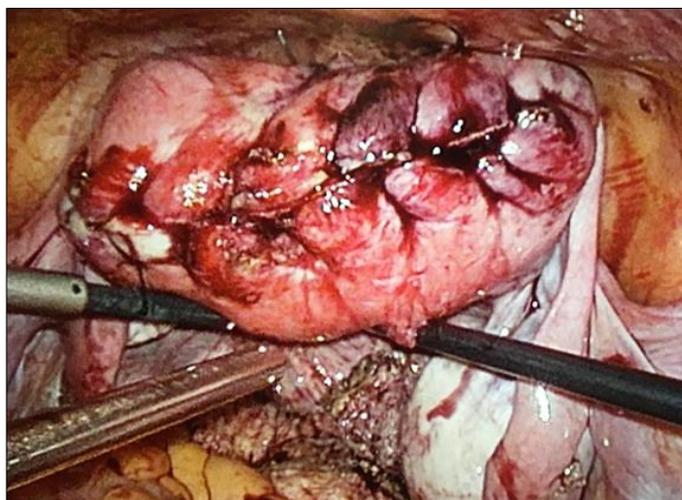
myometrium was closed in layers, and hemostasis achieved. Post operatively Foley catheter was kept for one week to allow endometrial cavity to restore while patient was started on oral estrogen therapy. Patient had improvement in dysmenorrhea and dysperunia following surgery and hysterosalpingogram at post-operative 3 months revealed normal endometrial cavity with bilateral tubal patency.



**Fig 1:** Difficult identification of tissue planes following GNRH therapy during myomectomy



**Fig 2:** Endometrial cavity repair around Foley catheter balloon



**Fig 3:** Appearance after repair**References**

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