10.5005/jp-journals-10058-0029

CASE REPORT

Submucous Myoma: Laparoscopic Myomectomy

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ABSTRACT

A 24-year-old nullipara presented to our outpatient department with severe menorrhagia and infertility with a 20 weeks size uterus. The sonography showed a large submucous myoma. Diagnostic hysteroscopy showed an obliterated endometrial cavity. Laparoscopic myomectomy was done leaving behind an intact endometrium.

Keywords: Big myoma, Laparoscopy, Submucous.

How to cite this article: Jain N, Jain V, Jain P. Submucous Myoma: Laparoscopic Myomectomy. Int J Gynecol Endsc 2018;2(1):35-37.

Source of support: Nil

Conflict of interest: None

INTRODUCTION

Uterine leiomyomas are one of the most common benign smooth muscle tumors in women, with a prevalence of 20 to 40% in women over the age of 35 years.[1] Submucous myomas are those that most frequently cause menorrhagia and infertility.[2] Hysteroscopic removal is generally done for submucous myomas. Uterine bleeding, perforation, and fluid overload are major complications that can occur during hysteroscopic myomectomy.[3] Here is a case report of submucous myoma removed laparoscopically.

CASE REPORT

A 24-year-old patient came to our outpatient department presenting with complaints of severe menorrhagia and infertility for 1 year. She had no significant previous medical or surgical history. Abdominal examination revealed a 20 weeks size uterine mass, which was uniformly enlarged. Ultrasonography revealed an enlarged uterus with a large submucous myoma of size 93 × 79 mm. Both the ovaries were normal on sonography. Her hemoglobin level on first visit was 5.4 gm%, which was built up to 10.4 gm% by parenteral iron transfusions preoperatively, and the patient was taken up for surgery.

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OPERATIVE PROCEDURE

The patient was laid in modified lithotomy position and general anesthesia was given. A diagnostic hysteroscopy showed a large submucous myoma (type II) bulging into the endometrial cavity from the posterior wall (Fig. 1). In order to decrease the surgical time and prevent fluid overload, decision to do laparoscopic myomectomy was taken. Veress needle was inserted intraumbilically and pneumoperitoneum created. A first, a 5-mm blind port was inserted at the Jain point. It is a safe portal for entry in cases with large masses and even in cases with previous surgery, lying in the left paraumbilical region, in a straight line drawn vertically upward from a point 2.5 cm medial to the anterior superior iliac spine (ASIS). It provides good ergonomic working, works as a main operating region, and is free of any adhesions. A 10-mm port was made supraumbilically, around 10 finger breadth above the umbilicus, under vision of the first 5-mm port. Two accessory 5-mm ports were made, first in the left lower quadrant and second in the right lower quadrant, about 2.5 cm medial and above ASIS. A 30° 10-mm laparoscope was inserted. A grossly, uniformly enlarged uterus was visualized extending up to aortic bifurcation. Uterovesical pouch and Pouch of Doughlas appeared normal. Bilateral tubes and ovaries appeared normal. Tubal patency was established. Diluted vasopressin (1 ampule of vasopressin in 500 mL of normal saline) was injected slowly into the uterus, after correct placement of injection needle (Fig. 2). Large volume of the solution was used. This was done to obtain hemostasis in a big-sized uterus and

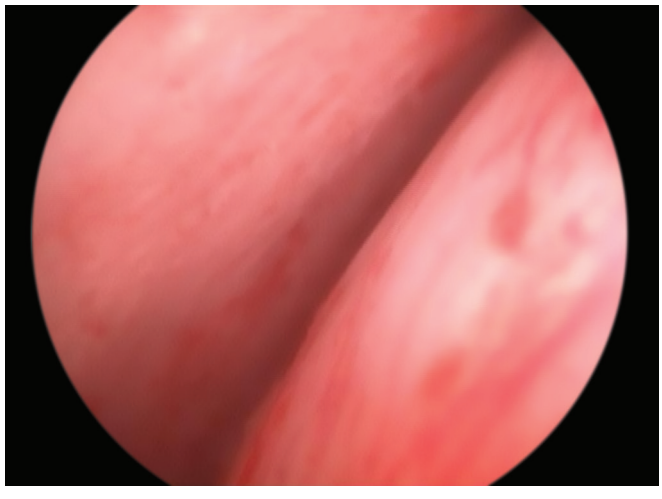

Fig. 1: Hysteroscopic view of submucous myoma

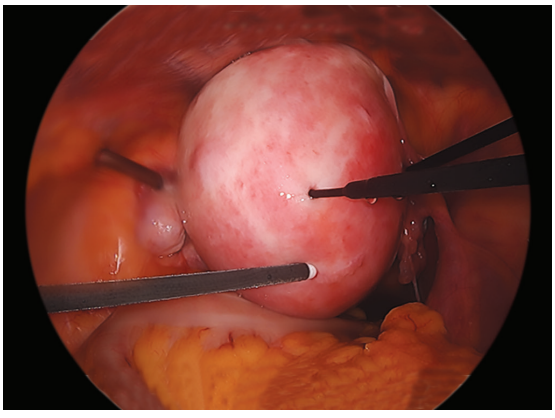

Fig. 2: Laparoscopic view; vasopressin being injected

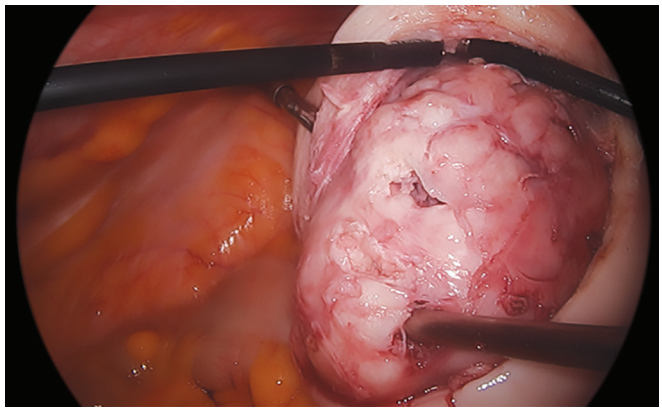

Fig. 3: Myoma enucleation

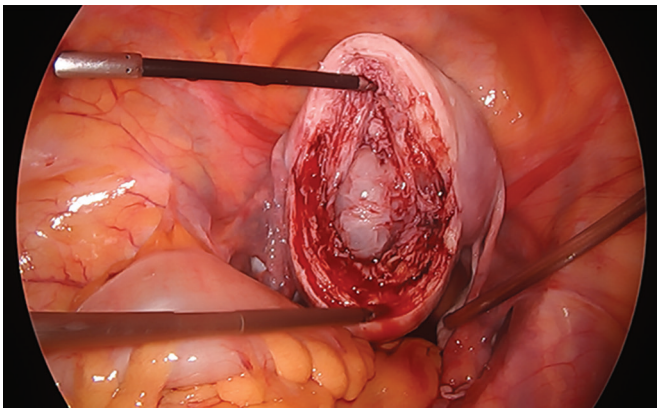

Fig. 4: Intact endometrial cavity after enucleation

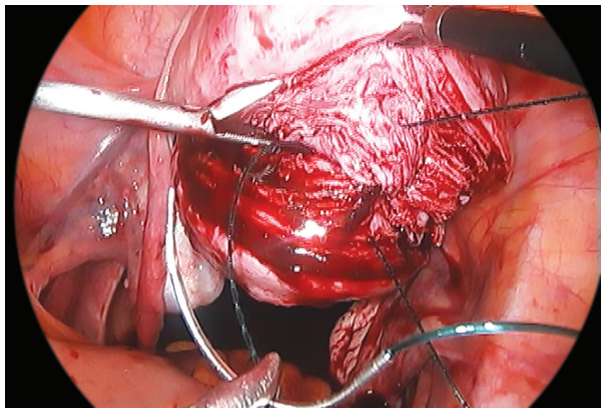

Fig. 5: Myoma bed suturing with braided suture

for the purpose of hydrodissection. Transverse incision was given over the most bulging part of myoma with harmonic until the pearly white myoma appeared. We proceeded in an onion peel technique, going slowly layer-by-layer until the last layer, separating the myoma from its capsule (Fig. 3). Carefully proceeding, the entire endometrial cavity was found intact appearing as a slightly bluish layer compared with the myoma bed (Fig. 4). Diligent and careful layer-by-layer dissection helps to keep the endometrium intact.

Myoma was completely enucleated without opening the endometrial cavity, within very less time. Myoma bed was sutured in three layers, with deeper layers done using a barbed suture (Fig. 5) and superficial layer of myometrium and serosa done with Vicryl 1-0. In-bag morcellation of the myoma was done. Very good anatomical end result was obtained (Fig. 6).

Surgery was finished with port closures with almost negligible operative blood loss. Patient was mobilized within a few hours after surgery along with removal of urinary catheter, and intake of liquid followed by semisolid diet. Specimen was sent for histopathology with its gross weight being 750 gm.

Postoperative period went completely uneventful, and the patient was discharged under satisfactory conditions.

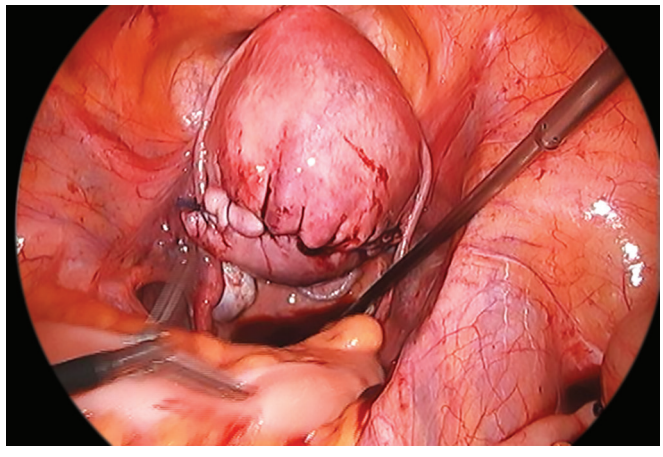

Fig. 6: End anatomical result

DISCUSSION

Hysteroscopic myomectomy is a therapeutic option for the treatment of submucous fibroids.[4] Conventionally, hysteroscopic myomectomy is not advised if the myoma is larger than 5 or 6 cm, if more than 50% of the endometrial surface is affected by myoma size or number , or if the size of the uterine cavity has been limited to that of 16 weeks of gestation or to 10, 12, or 15 cm.[5]

Important concern during hysteroscopic resection of submucous myoma is that the procedure might cause fluid overload or result in uterine perforation.

Some authors have described two-stage hysteroscopic myomectomy for removal of large submucous fibroids.[6] Myomas with the greatest diameter within the uterine wall have been associated with increased operating time and potential side effects, such as heavy hemorrhage, difficulty to control uterine perforation and water intoxication, and often require a second-stage operation to remove the myoma when the remaining portion of the submucous fibroid has been pushed into the uterine cavity by continuous myometrial contraction.[7]

The concerns of laparoscopic removal of submucous fibroids are mainly: opening the endometrial cavity, healing of suture line, possibility of subsequent pregnancy, and risk of uterine rupture during pregnancy. The events leading to dehiscence are thought to include suboptimal suturing of the uterine incision and/or impaired wound healing from extensive use of coagulation or any tissue-destroying modality.[8]

The technique we described utilizes getting a good plane of cleavage of large myoma without much use of electrocautery. Good hydrodissection helped us further in minimizing the blood loss and cautery, keeping the layer-by-layer technique of removal and totally avoiding the opening up of endometrial cavity.

Therefore, laparoscopic myomectomy can be done safely in select cases of submucous myoma to reduce complications, but good expertise is required.

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