

Minilaparotomy-Assisted LAVH for a Very Large Fibroid

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ABSTRACT

We present the case report of a minilaparotomy-assisted LAVH carried out for the largest uterine myoma ever reported, with size equivalent to a full-term gestation.

Key Words: LAVH (Laparoscopic Assisted Vaginal Hysterectomy), Minilaparotomy, Fibroid, Morcellator.

INTRODUCTION

The first laparoscopic-assisted vaginal hysterectomy (LAVH) was reported in 1989.¹ Laparoscopic hysterectomy utilizes the latest minimally invasive surgical techniques to remove the uterus through small finger-width (0.5-cm to 1-cm) abdominal incisions. It has become one of the most common major surgical procedures performed by gynecologists.

We present the case of a large uterine myoma, to our knowledge the largest ever reported. The largest removed by minilaparotomy assisted LAVH prior to this weighed 3250 grams.²

CASE REPORT

A 37-year-old woman, gravida 2 para 2, with a known history of myoma disease for several years presented to our facility with multiple complaints including worsening hypermenorrhea, dysmenorrhea, dizziness, dyspepsia, constipation, urinary symptoms, and generalized bloating and pressure in the abdomen. She had 28-day cycles with menses lasting 5 days to 7 days with an average amount of discharge of 200 mL per cycle. Her other obstetric and gynecological history was unremarkable. The patient had previously turned down surgical treatment for her enlarging myoma, instead opting for traditional Chinese herbal medicine, which had proved ineffective over several years.

On clinical examination, the patient appeared cachectic and pale. Speculum examination revealed a high, abnormally retracted, atrophied cervix and the prominent protruded dome of a firm, term-sized, mobile uterus. Transabdominal and transvaginal ultrasound were both carried out, revealing a huge uterus with a myoma the size of which exceeded the sonography measuring zone. A full blood count revealed microcytic anemia (Hb-7.9g/dL, MCV-73fl). Because a simultaneous ovarian cyst was also found, the patient was offered the surgical option of laparoscopic hysterectomy with unilateral ovarian preservation. **Figure 1** shows the preoperative abdominal appearance of the patient.

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Figure 1. Preoperative abdominal appearance of the patient.

Routine preoperative preparation was done, and 1 gram of cefazolin was given 30 minutes prior to anesthesia induction. The patient subsequently underwent an uncomplicated LAVH. With the upper edge of the tumor dome over the umbilical area, the first trocar entry at Palmer's point³ was considered. However, due to the size of the tumor, the sites of the 2 abdominal ports had to be modified. Both were placed more superiorly, which were approximately 10-cm lateral and 1-cm superior to the umbilicus on both sides, than where they would normally be to permit the feasibility of this procedure. Despite this, the massive fibroid posed technical difficulty for the surgeons. Laparoscopic viewing was obscured with consequent poor visualization of the pelvic cavity. Careful maneuvering by a surgeon with adequate laparoscopic experience was required for a successful outcome. After the round ligaments and the uterine suspensory ligaments were electrocoagulated with bipolar electrocautery, cut and freed by Endo scissors, a vaginal approach for the cardinal and uterosacral ligaments was undertaken. Through a 7-cm Pfannenstiel incision (minilaparotomy), the freed uterus was morcellated by using a standard 10# scalpel and retrieved. Vault closure was done transvaginally with the knots tied extracorporeally. The dissected peritoneum and abdominal fascia were closed by individual layers with absorbable 2-0 Dexon sutures, and the skin with absorbable 4-0 Dexon subcuticle sutures. Removal of the tumor dramatically reduced the patient's weight and abdominal profile.

Mean operating time was 150 minutes, and actual morcellation time was about 30 minutes. Intraoperative blood



Figure 2. The 3560-gram uterus after removal.

loss was about 800 mL, and the patient received 4 units of packed red blood cells (PRBC) during the operation. The removed uterus weighed 3560 grams (**Figure 2**). The patient was discharged on the fourth postoperative day without any complications.

DISCUSSION

The laparoscopic approach is clearly advantageous over laparotomy in treating uterine fibroids with its less invasive nature. It also necessitates a shorter hospital stay and time off from work (1 week), causes less postoperative pain and scarring, and is associated with a lower risk of wound infection and separation. In managing such a large uterine fibroid, advanced training and technical skill are the key determinants to a successful outcome. Due to the huge myoma size that distorted the normal laparoscopic appearance of the pelvic cavity, special care needs to be taken to avoid inadvertent urinary tract injuries. From our own experience, preoperative consultation with the urologist for ureteral catheter placement to facilitate anatomical delineation of the urinary tract intraoperatively is a worthwhile preventive measure.⁴ Late recognition of these injuries, especially postoperatively, increases the severity of the sequelae as well as medico-legal liability.⁵

CONCLUSION

This case demonstrates that even in the presence of such a large tumor, laparotomy is not absolutely necessary, and that minilaparotomy assisted LAVH is a perfectly acceptable option. However, due to certain

conditions encountered intraoperatively, such as severe adhesions, extreme size, or suspicion of malignancy, conversion to a laparotomy is a possibility in all cases and therefore informing of the patient preoperatively is mandatory.

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