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Case Report

Laparoscopic Mesh Sacrohysteropexy With Concurrent Laparoscopic Myomectomy for Treatment of Multiple Myomas: Case Report and Literature Review

Orawee Chinthakanan, MD, MPH*, John R. Miklos, MD, and Robert D. Moore, DO

From the Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand (Dr. Chinthakanan), and Atlanta Center for Laparoscopic Urogynecology, Atlanta, Georgia (Drs. Miklos and Moore).

ABSTRACT Conservative surgical management of uterine prolapse with uterine conservation has become an alternative treatment in women who wish to maintain their uterus. Vaginal and abdominal approaches for uterine suspension have been described and reported. Certain concomitant pathologic conditions of the uterus such as uterine myomas have been considered in some patients to be a contraindication to conservative surgery. Herein we report the case of a 55-year-old woman with symptomatic uterine prolapse with multiple myomas who desired uterine preservation and was successfully treated via laparoscopic myomectomy and laparoscopic mesh sacrohysteropexy. Journal of Minimally Invasive Gynecology (2013) 20, 903–906 © 2013 AAGL. All rights reserved.

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Approximately 30% to 40% of all women develop some degree of pelvic organ prolapse (POP) in their lifetime [1]. A lifetime risk of undergoing surgery to correct POP by age 80 years is 11.8% [2]. Hysterectomy via either the vaginal or abdominal route has been a traditional surgical treatment for uterine prolapse with concomitant vaginal vault suspension. Indeed, in the United States, prolapse is the most common indication for hysterectomy in women older than 55 years [3]. However, for a variety of reasons, many women may desire uterine preservation rather than hysterectomy. Over the years, various treatments in patients with uterine prolapse who desire uterine conservation have been described including the Manchester procedure, transvaginal uterosacral suspension, sacrospinous hysteropexy, sacrohysteropexy/sacrocervicopexy, pectineal ligament suspension, retropubic suspension, or uterosacral/round ligament suspension [4]. More recently, laparoscopic mesh hysteropexy has been described and shown to be an effective procedure for treatment of uterine prolapse in women who desire uterine preservation [5]. In the past, however, certain pathologic conditions of the uterus such as uterine myomas have been considered a contraindication to uterine preservation. Herein we present the case of a postmenopausal woman with uterine prolapse and myomas who wished to maintain her uterus. We describe a successful laparoscopic approach to debulk the uterus via multiple myomectomy procedures followed by concomitant mesh sacrohysteropexy suspension of the uterus.

Case Report

A previously healthy, obese, 55-year-old, gravida 3 para 3, woman reported a 4-year history of bulging and a feeling of pressure in her genital area. She described it as a protrusion outside of her vagina. Her gynecologist had recommended hysterectomy with concomitant repair of the prolapse; however, she refused because of her desire to not have

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Corresponding author: Orawee Chinthakanan, MD, MPH, Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, Thailand.
E-mail: orawee_pui@yahoo.com

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a hysterectomy. No alternatives to this treatment were offered. The patient came to our clinic seeking treatment of the prolapse with uterine preservation. In addition, she reported urinary urgency, frequency, and nocturia. She did not report a feeling of pressure, urinary incontinence, sexual dysfunction, or any vaginal bleeding or menses. She reported constipation, which often was relieved with use of herbal supplements. She denied any concern about fecal emptying or evacuation. She was not sexually active because of the prolapse-associated symptoms.

Her obstetric history included 3 normal deliveries. Her last menstrual period had been 3 years before the examination. She had undergone bilateral tubal ligation 25 years previously, and embolization of uterine myomas 12 years previously. Pelvic examination revealed stage III uterine prolapse according to pelvic organ prolapse quantification (POP-Q) and stage II anterior wall prolapse (Aa 0, Ba 0, Ap −2, Bp −2, C +2, D −4, and total vaginal length 9 cm). The cervix looked normal, with mild elongation. The uterus was slightly enlarged, and several small myomas were palpated; however, the examination was somewhat limited secondary to the patient's size. Pelvic ultrasound was performed, and findings were consistent with those at the examination. Results of urodynamics testing were normal as well and did not demonstrate any stress urinary incontinence with or without the prolapse reduced.

Because the patient desired preservation of the uterus, she was counseled to undergo laparoscopic mesh sacrohysteropexy with paravaginal repair. She also consented to possible myomectomy or hysterectomy, if necessary, during surgery. She had previously been given the option of pessary, but declined. At laparoscopy, multiple large myomas were noted (Fig. 1A), which were larger than palpated at examination or observed at ultrasound, and given their size and location inhibited the ability to suspend the uterus. The posterior myomas were blocking access to the presacral space and were limiting visibility as well as access to the uterus for mesh placement. We believed the best treatment option to preserve the uterus was to remove the myomas at the fundus and posterior wall of the uterus, which would debulk the uterus and enable access to the posterior aspect of the uterus and suspension via mesh sacrohysteropexy. Pedunculated myomas were removed from the fundus of the uterus and placed in the cul-de-sac for later removal. Several larger intramural myomas were then removed from the posterior aspect of the uterus via standard laparoscopic myomectomy techniques (Fig. 1B). At no time was the endometrial cavity entered during resection of the myomas. A total of 5 myomas weighing 110 g were removed. The defects were then closed via laparoscopic suturing techniques using absorbable quill-type sutures in a multilayer closure. After laparoscopic myomectomy, mesh sacrohysteropexy was performed to suspend the uterus. Type I macroporous polypropylene mesh was cut to size to fit the posterior aspect of the cervix and uterus and made long enough to reach the area of the presacral ligament (Fig. 1C). The mesh was attached to the

Fig. 1

(A) Multiple myomas at posterior wall. **(B)** Myomas enucleated from posterior uterine wall. **(C)** Mesh application at posterior uterine wall. **(D)** Mesh application at sacral promontory.