



Case Report

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## Large cervical myoma originating from the uterine corpus

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### Abstract

This case report aimed to present a case of large cervical myoma that obliterated the ureterovesical area and filled the entire cervix. A 33-year-old patient had a tumoral lesion of approximately 80x60 mm, compatible with myoma, that filled the cervical cavity. On vaginal examination, a barrel-shaped, immobile and large cervix was palpated. A preoperative bilateral double J catheter was applied to the patient. While the uterine cervix was barrel-shaped due to myoma and was palpable from Douglas, it was firmly fixed anteriorly to the bladder and corpus. During bladder dissection, approximately 4 cm defect was formed in the isthmus, and the uterine cavity was entered. A myoma with a diameter of approximately 9 cm, which filled the entire cervix from the uterine isthmus and had a stem attached to the fundus, was observed in the cavity, and the myoma was pulled out from the defect with a tenaculum and removed. Since the anterior cervix could not be reached and bladder dissection could not be achieved, a subtotal hysterectomy was performed. Although they are mainly treated surgically, there is no standard treatment for cervical myomas. Due to its proximity to vital organs, care should be taken against the risk of organ injury.

**Keywords:** leiomyoma, cervix, hysterectomy, myoma

### 1. Introduction

Cervical leiomyomas occur rarely, and approximately 1-2% of uterine leiomyomas are cervical (1). The most common symptom is dysmenorrhea. Symptoms of abnormal uterine bleeding and pelvic compression may also develop. It is not surprising that cervical myomas cause compression symptoms due to their proximity to surrounding organs (2).

### 2. Case Report

A 33-year-old patient was admitted with a complaint of inguinal pain. She had no known chronic, systemic diseases and had 3 cesarean section and tubal ligation surgeries in her history. In the examination with TVUSG, a lesion consistent with a submucous myoma of approximately 4 cm was observed in the isthmus region of the uterus. On pelvic MRI imaging, it was reported that the same lesion was consistent with a well-circumscribed submucous myoma originating from the uterine fundus and extending into the endometrial cavity, measuring 40x88x57 mm at its widest point. In the follow-up of the patient who did not accept the operational procedure 4 months later, the TVUSG examination revealed a tumoral lesion compatible with myoma, approximately 80x60 mm in size, filling the cervical cavity, including the isthmus region. On vaginal examination, a barrel-shaped, immobile and large cervix was palpated. The patient's cervical pap smear was normal and HPV negative. The laboratory examination revealed a Hb value of 7.6 g/dl, platelet of 117000/ $\mu$ L, AST of 35 U/L, INR of 8.61, total protein of 4.43 g/dl, BG of 181

mg/dl, and creatinine of 1.28 mg/dl. The patient, whose complaint of inguinal pain increased and myoma enlarged, accepted to have the operation. After inserting a bilateral ureteral double-j catheter, the patient's abdomen was entered with a Pfannenstiel incision. On inspection, the uterus fundus and corpus were normal, while the cervical region was globally palpable from the Douglas due to myoma. Anteriorly, the bladder was tightly fixed up to the uterus corpus, and the cervix was inaccessible from the anterior. Bilateral tuba and ovaries were also tightly adhered to the lateral wall of the abdomen and each other. First, the bilateral adnexa were dissected from the lateral wall of the abdomen and released, and a hysterectomy was initiated. During bladder dissection, due to dense adhesion of the lower uterine segment and bladder dome, a defect of approximately 4 cm occurred in the isthmus, and the uterine cavity was entered. A pedunculated, submucous myoma with a diameter of 9 cm extending from the uterine isthmus to the cervix and attached to the fundus was observed in the cavity. The myoma was pulled out from the defect by holding with a tenaculum and removed (Fig. 1, 2). The defect that occurred while trying to remove the dense adhesion in the anterior was determined to belong to the bladder after methylene blue was administered from the catheter, and the defect in the bladder was closed with two layers of 2/0 vicryl sutures. A subtotal hysterectomy was performed since the cervix could not be reached below and bladder dissection could not be achieved.

Bilateral ureters were dissected, visualization was achieved, and they were observed to be intact. The abdomen was closed after achieving the hemostasis. The patient, who had no complications in the postoperative follow-up, was discharged with the bladder catheter remaining for 10 days.



**Fig. 1.** Large cervical myoma held with a tenaculum



**Fig. 2.** Large cervical myoma removed from the abdomen

### 3. Discussion

Cervical myomas are generally classified as subserous (extra-cervical) and intracervical (intracervical) lesions (3). The anatomical localization of cervical myomas poses a significant challenge in surgical management. It is closely adjacent to the bladder anteriorly, the rectum posteriorly, and the ureters laterally. In cases such as previous pelvic surgery, pelvic inflammatory disease, and endometriosis, severe adhesion to these nearby structures may be encountered, increasing the

possibility of organ injury during surgery (4). We had a great suspicion of adhesion since our case had a history of 3 cesarean section operations, and an immobile mass compatible with the frozen pelvis was palpated on vaginal examination. Therefore, we applied a preoperative double J catheter to the patient's ureters. Also, as the size of the cervical myoma increases, it may cause position change, especially by pushing the ureters, and may obstruct the uterine artery and vein (5). Intraoperative hemorrhage risk is also increased due to the proximity of cervical myoma to large vascular structures and vascular hypertrophy due to myoma (6). To minimize bleeding, preoperative use of GnRH agonists (7), uterine artery ligation (8), temporary bilateral uterine artery balloon endovascular ligation (8), and vasopressin injection into myoma (9) have been recommended. However, in very large cervical myomas and the presence of adhesion to the surrounding tissues, it may not be possible to reach the uterine arteries (10). Similarly, cervical myomectomy is difficult to perform due to all these difficulties, and cervical myoma enucleation has also been reported, especially during abdominal hysterectomy in large myomas (11).

In women who want to have children in the future, the location of the leiomyoma on the cervix creates an additional difficulty in the surgical approach. Currently, no standard surgical treatment has been defined for cervical leiomyomas. Therefore, the therapeutic approach depends on the patient's characteristics, fertility desire, and the surgeon's experience. Cases of abdominal hysterectomy, myomectomy, and laparoscopic hysterectomy and myomectomy have been reported in the literature (12).

In addition to surgical treatment, interventional radiology techniques for the treatment of cervical leiomyomas have been reported promising but still limited results. These techniques may be more appropriate in patients who want to preserve the uterus or have contraindications for surgery (13).

Although they are mainly treated surgically, there is no standard treatment for cervical myomas. There are case reports of myomectomy and/or hysterectomy with both laparoscopic and laparotomic techniques in surgical treatment. When choosing a surgical technique, surgical experience, control of the retroperitoneum, the patient's previous surgical history, the size of the myoma, and the patient's expectation of a child should be considered. Particular attention should be paid to the risk of urological injury, especially in patients with a history of previous cesarean sections.

### Conflict of interest

The authors declared no conflict of interest.

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