Vaginal Removal of Very Large Nascent Uterine Myoma – Case Report and Literature Review

This report shows that even extremely large nascent uterine myomas can be removed vaginally. A 25-year-old nulligravid and nulliparous patient with malaise, hypermenorrhea, and intermittent cramping pain in the lower abdomen was referred to our clinic. Gynecological examination revealed a round cauliflower-like tumor, 7 cm in diameter, originating from the external cervical os with a rough surface and without a palpable stalk or base. Ultrasound scan showed a hyperchoic mass within the uterine cavity with two distinct subunits: one (55 × 44 mm) well-demarcated from the surrounding structures and the other (43 × 38 mm) in close proximity to the lower part of the anterior uterine wall and in continuity with the myometrium. At surgery, the myoma was completely removed vaginally. Recovery was prompt, complete, and uneventful. Follow-up at one and three months confirmed normal gynecological and sonographic findings. In conclusion, vaginal myomectomy is the treatment of choice for prolapsed pedunculated submucous myoma; even extremely large nascent myomas can be efficiently removed vaginally.
Case Report

A 25-year-old nulligravid and nulliparous patient was referred to our Ob/Gyn Department for malaise, hypermenorrhea, and intermittent cramping pain in the lower abdomen. Six months earlier, she had undergone gynecological examination for the same complaints, but the appropriate diagnosis was not made and she was advised to take progestagens along with iron supplementation.

On admission, gynecological examination revealed an extremely large, round, cauliflower-like tumor, 7 cm in diameter, originating from the external cervical os with a rough surface and without a palpable stalk or base. Apart from the enlarged and softened uterus, other gynecological findings were normal. All laboratory analyses (blood, urine, etc.) were within referral ranges.

Ultrasound scan confirmed the presence of a hyperechogenic mass within the uterine cavity, well-demarcated from the surrounding structures, except at the anterior uterine wall near to the lower part of the uterus where it was noted to be in continuity with the myometrium. The tumor had two subunits: the first (55 × 44 mm) was well demarcated, and the second (43 × 38 mm) was in close proximity to the anterior uterine wall (Fig. 1).

At surgery, both tumor parts were completely removed vaginally (Fig. 2). After removal, the large and wide tumor base was clearly visualized, divided, clamped, cut, and sutured (Fig. 3). Pathohistological findings confirmed the presence of a degenerating uterine myoma (connective tissue and proliferating smooth muscle bundles in a whorl-like pattern, with an extensive area of hyalinization and edema).

Broad-spectrum antibiotics were administered. The postoperative course was uneventful and the patient was discharged on the second day after surgery. Follow-up was at one and three months after surgery and confirmed normal gynecological and sonographic findings.

Discussion

Uterine fibroids (myomas or leiomyomas) are the most common benign, monoclonal, smooth muscle cell tumors of the human uterus. Their etiology is multifactorial, and the incidence ranges from 5 to 77% in women of reproductive age [1].

The majority of women with uterine fibroids are asymptomatic and fibroid tumors therefore often remain undiagnosed. Symptomatic women typically complain of heavy and prolonged bleeding, especially if the myoma is located intramurally or submucosally [2, 3]. In addition, women with uterine fibroids may suffer more often from dyspareunia, dysmenorrhea, or non-cyclic pelvic pain and heaviness in the pelvic region with compression of a neighboring organ such as the bladder or rectum [4].

The diagnosis of prolapsed pedunculated myoma is easy once the myoma has protruded through the cervical canal. However, a broad-based endometrial polyp may sometimes be difficult to distinguish from a prolapsed pedunculated submucosal myoma. Moreover, both conditions present with similar symptoms (irregular uterine bleeding) [2]. Although preoperative ultrasonographic examination can be used to assess the position and size of the fibroid to select the best operative procedure, the overall predictive value of ultrasound is unsatisfactory because findings may be confused with those typical of other endometrial tumors (malignant tumors, molar tissue, etc.), especially when the myo-
ma has degenerated [5,6]. A recently described new ultrasound marker, referred to as “the bright edge of the polyp”, may be of diagnostic assistance in distinguishing between myomas and polyps [2]. Some authors suggest magnetic resonance imaging (MRI) as the best diagnostic method to determine an intracavitary pathology when precise mapping of tissue is needed [1,5]. Although our patient presented with the usual symptoms, the correct diagnosis was not made until the myoma could be confirmed visually. In this patient, ultrasonography proved to be appropriate and accurate for the evaluation of the myoma’s structure. 

There are many treatment options for myomas, ranging from surgical to medical options. The choice must depend on the severity of symptoms, the number and size of the leiomyomas, patient age and chronological proximity to menopause, the patient’s wish for children, and patient preference [1]. The gold standard to treat symptomatic leiomyoma is surgery. Uterine fibroids are the leading indication for hysterectomies, especially if the uterine size estimated preoperatively is larger than 12 weeks of gestation [4]. Hysterectomy is the definitive surgical operation, but it is unsuitable for women who wish to have children. Different conservative therapeutic options are available for such patients. Although gonadotropin-releasing hormone agonists and medications that manipulate concentrations of steroid hormones are effective, their side effects limit their long-term use, and the formation of new leiomyomas after these conservative therapies remains a substantial problem [1]. Consequently, the best option might be myomectomy. Other recently developed techniques, such as uterine artery embolization (UAE), magnetic resonance-guided focused-ultrasound surgery (MRgFUS), and myolysis are emerging as alternative minimally invasive procedures [7]. However, UAE can have serious complications affecting future fertility and its efficacy is limited if fibroids are large. Moreover, UAE is contraindicated if the myoma is submucosal or subserosal and is attached by a pedicle [3].

If the myoma is submucosal, is contained within the uterine cavity and 4 cm in diameter or smaller, then hysteroscopic resection is the preferred technique [3]. However, for larger lesions, hysteroscopy is difficult, especially for submucous myomas with a considerable intramural component, similar to the one described in this report; in these cases hysteroscopy may not be adequate and additional surgical sessions may be necessary for complete resection. Hence, this approach is less attractive [8].

Vaginal myomectomy for symptomatic prolapsed pedunculated submucous myoma is generally a very successful, quick and safe procedure with reduced operating times. Therefore, this approach is recommended as the initial treatment of choice for prolapsed pedunculated submucosal myoma [2]. For large pedunculated submucosal myomas which cannot be extracted in one piece or for which vaginal hysterectomy cannot be performed, some authors have suggested transcervical resection or clamping of a pedicle before surgery to reduce tumor size [9]. As a result, most nascent myomas can be safely extracted vaginally without the need for hysterectomy. The average size of myomas successfully removed vaginally was 50 mm [10]. However, we have shown here that vaginal extraction of an even larger nascent myoma with a diameter of 7 cm can be done effectively. After successful vaginal myomectomy, most patients are asymptomatic and menstruate normally [2]. The presented case once again demonstrates that the postoperative course of an adequately performed vaginal myomectomy can be uneventful with a quick recovery time, even if the nascent myoma was very large and broad-based.

Conclusions

In conclusion, vaginal myomectomy is the treatment of choice for prolapsed pedunculated submucosal myoma, and even an extremely large nascent uterine myoma can be successfully removed vaginally. The vaginal approach for nascent myomas is safe, short, simple, definitive, and, in most cases, causes minimal discomfort to patients.

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Conflict of Interest

None.

References