



Case Report

A Huge Vaginal Prolapse of Uterine Leiomyoma Complicated with Cervical Inversion: A Case Report

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KEYWORD

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ABSTRACT

Introduction: Uterine fibroids are non-malignant neoplasms originating from the smooth muscle cells of the uterus, and they represent the most prevalent tumor seen within the female reproductive system. The primary established approach to manage this condition is surgical interventions, specifically myomectomy, hysterectomy, or hysteroscopic removal of small subserous nodules. Occasionally, submucous fibroids may protrude through the cervical os, thereby enabling the feasibility of performing a vaginal hysterectomy.

Case Presentation: The clinical presentation of a 44-year-old multiparous woman who arrived with symptoms of vaginal bleeding and a sizable mass protruding through the vaginal opening. The patient underwent an emergency vaginal extraction to remove the mass measuring 24 cm in the emergency room and a scheduled for elective surgery. During the procedure, uterine inversion was found with a muscle bundle around the corpus uteri and a fourth-grade perineal tear. This patient was also planned for a total abdominal hysterectomy and bilateral-salpingo-oophorectomy procedure, along with Haultain's procedure and perineal repair. The patient exhibited favorable surgical outcomes.

Conclusion: Hysterectomy is the preferred therapy for prolapsed pedunculated submucous myoma. It has been seen that even exceptionally big nascent myomas can be effectively removed using vaginal means.

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INTRODUCTION

Uterine myomas are categorized based on their anatomical positioning, including subserosal, intramural, submucosal, wide ligament, or cervical myomas [1]. Submucosal myomas are characterized by their growth within the inner layer of the myometrium, extending into the uterine cavity. If pedunculated, they have the potential to ultimately emerge through the gradually expanding cervical canal and descend into the vaginal cavity. Prolapse of myomas into the vagina might occur in cases where the myomas are of significant size. The primary consequence of this condition is necrotic degeneration and subsequent infection [2,3]. The subset of prolapsed pedunculated

submucous myomas, often called nascent myomas, constitutes a distinct category in terms of their management. Vaginal removal is a common method for their extraction due to its convenient accessibility, minimal bleeding, and absence of the need for cervical dilation [4].

Nevertheless, sizable nascent myomas with a wide base might result in significant hemorrhaging and increase the likelihood of uterine inversion after their extraction. Consequently, in certain cases, a hysterectomy may be necessary. This study aimed to illustrate the feasibility of successful vaginal removal of a very big nascent uterine myoma.

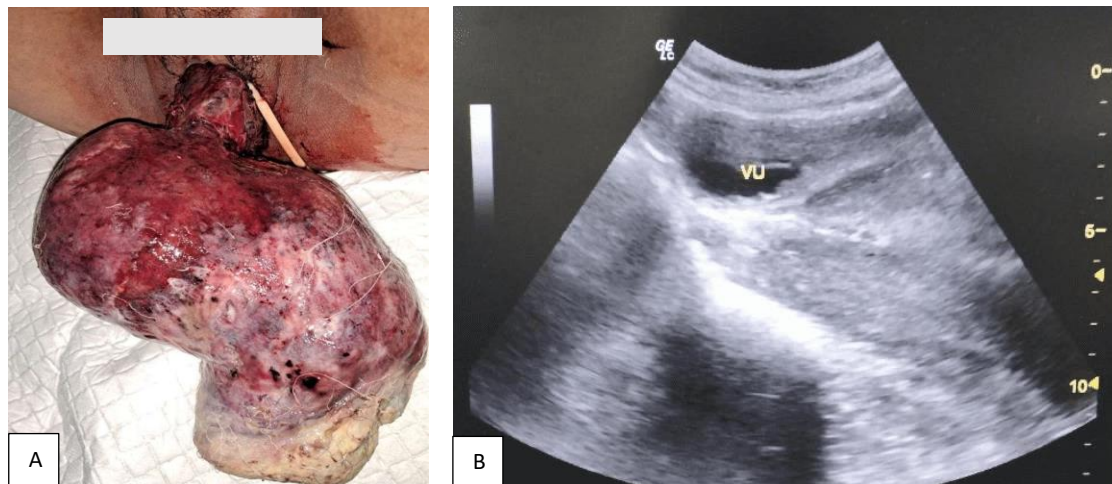


Fig. 1. A. Uterus with Polyp; and B. Ultrasonogram of Pelvis

CASE PRESENTATION

The 44-year-old multiparous woman complained of abdominal enlargement and discomfort for two months, accompanied by a mass protruding outside the vagina and vaginal bleeding for two days. The mass was present inside the vagina for the last two months (Fig. 1A). The patient had underlying diabetic mellitus disease but didn't have any medication. The patient had a low socioeconomic status. Thus, the patient was delayed in receiving adequate health care.

A general examination revealed tachycardia with a pulse rate of 115x/minute, blood pressure of 132/81 mmHg, and pallor. On local examination, there was a 24x19x11 cm size mass with a weight of 2050 grams protruding out of the vagina with a bossellated surface. The patient underwent laboratory and ultrasonography examinations. The laboratory result showed anaemia (Hb 8.2 gr/dL) and leucocytosis (25.100). Transabdominal Ultrasonography revealed a large heterogenous lobulated mass resembling a uterus, showing the area of hemorrhage and cystic degeneration

protruding through the vagina to the exterior with nonvisualization of the uterus in the pelvic cavity, features suspicious of inversion of the uterus and fourth-grade perineal tear (Fig. 1B, 2A–C).

After stabilization of her general condition, vaginal resection of the mass protruding outside the vagina was done in the emergency room. Histopathological study revealed fragments composed of spindle cells with areas of hemorrhage and necrosis and didn't show any atypical mitotic cells. The pathological diagnosis was "Leiomyoma." (Fig. 3A–C).

The patient was planned for an elective total abdominal hysterectomy. Intraoperatively, an inversion uterine and ring of the bundle were found, and Haultain's procedure was decided. When the abdomen is opened, the constriction ring is divided posteriorly, the inversion is corrected, and the incision is closed in two layers. Then, it continued with a total abdominal hysterectomy and bilateral-salpyngo-oophorectomy. Histopathological study revealed chronic cervicitis and uterine hemorrhagic infarction. During the evaluation, the ruptured perineum grade IV was found. Thus, it is



Fig. 2. A. Vaginal resection of uterine leiomyoma; B. The outcome of vaginal resection; and C. Fourth-grade perineal tear

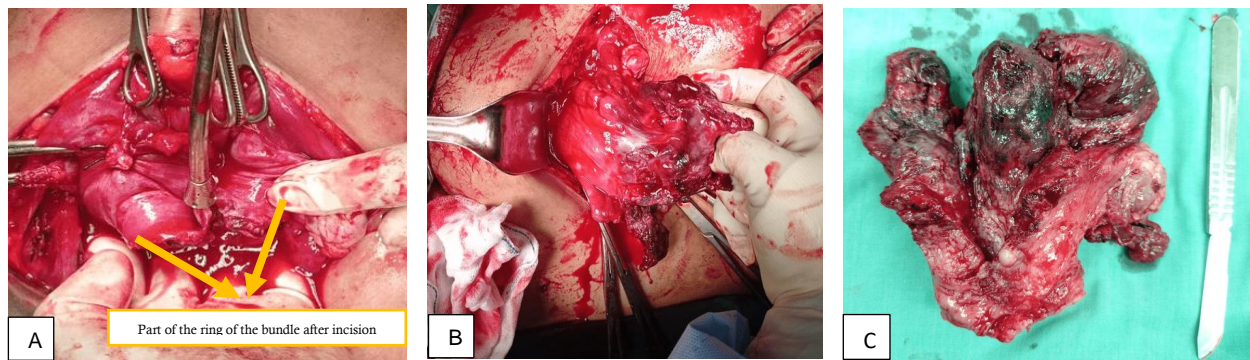


Fig. 3. A. Part of the ring of bundle in the uterus after incision; B. Uterus showing necrosis; and C. Outcome of hysterectomy

considered to repair the perineum. The patient had an uneventful post-operative period and was discharged after five days with complete recovery.

DISCUSSION

Uterine fibroids, also known as myomas or leiomyomas, are prevalent non-malignant neoplasms composed of monoclonal smooth muscle cells that mainly develop in the uterine tissue of individuals. Several factors characterize the etiology of this condition, and its occurrence varies between 5% and 77% among women in the reproductive age range [1].

Many women affected by uterine fibroids exhibit no symptoms, resulting in the frequent underdiagnosis of fibroid tumors. Moreover, it has been shown that females afflicted with uterine fibroids may have a higher frequency of dyspareunia, dysmenorrhea, or non-cyclic pelvic discomfort. These symptoms are typically accompanied by a sensation of heaviness in the pelvic area and compression of adjacent organs such as the bladder or rectum [5].

Most prolapsed leiomyomas exhibit a tiny yet varied size, ranging from 1 to 6 cm in diameter. Several case reports have been documented in the existing literature regarding massive prolapsed leiomyomas measuring above 10 cm in diameter [3,4,6–8]. The inversion of the fibroid uterus is influenced by various variables, such as the thinning and weakening of the uterine wall at the site where the tumor is implanted. This weakening is caused by pressure atrophy, which increases as the size of the tumor grows. Consequently, larger tumors have a greater impact on the pressure exerted and the likelihood of prolapse. The contractions of the uterine musculature, which are stimulated by the tumor, contribute to prolapse.

Identifying prolapsed pedunculated myoma becomes straightforward after the myoma has visibly extended outside the cervical canal. Nevertheless, it

might be challenging to differentiate between a broad-based endometrial polyp and a prolapsed pedunculated submucosal myoma. Furthermore, these disorders exhibit comparable symptoms, namely irregular uterine bleeding. The preoperative ultrasonographic examination has evaluated fibroids' location and dimensions to determine the most suitable surgical approach [9].

The surgical intervention of vaginal myomectomy is commonly employed to address symptomatic prolapsed pedunculated submucosal myomas. This treatment is generally characterized by a high success rate, expedited execution, and enhanced safety measures, resulting in decreased duration of operation. Hence, this approach is suggested as the primary treatment option for prolapsed pedunculated submucosal myoma [4]. According to a study by Rolli (2012) [10], the average size of successfully excised myomas by vaginal procedures was 50mm. Nevertheless, our study demonstrates that the successful vaginal extraction of a significantly larger nascent myoma measuring 7 cm in diameter is feasible.

The choice of myoma treatment should be based on several factors, including the intensity of symptoms, the quantity and dimensions of the leiomyomas, the patient's age and proximity to menopause, the patient's desire for future pregnancies, and the patient's personal preference [11]. Surgery is considered the gold standard for the treatment of symptomatic leiomyoma. Uterine fibroids are the primary rationale for hysterectomies, particularly when the projected preoperative uterine size exceeds 12 weeks of gestation. The hysterectomy procedure is considered the ultimate surgical intervention; nonetheless, it is not recommended for women who desire to conceive children [12]. Haultain's procedure principle involves the posterior division of the constriction ring, correction of the inversion, and closure of the incision in two layers after the abdomen has been opened [4].

Following a successful vaginal myomectomy continued by a hysterectomy, the patient exhibits no symptoms. The example provided in this study serves as

further evidence that a properly executed vaginal myomectomy can result in a smooth post-operative period and prompt recovery, regardless of the size and attachment of the initial myoma.

CONCLUSION

Vaginal myomectomy is the preferred treatment for prolapsed pedunculated submucosal myoma. Furthermore, it has been demonstrated that even a significantly huge pedunculated uterine myoma can be effectively extracted by a vaginal approach. The vaginal technique for huge myomas is considered safe and efficient, characterized by its brevity, simplicity, and conclusive outcomes. Additionally, it typically results in less patient discomfort.

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CONFLICT OF INTEREST

The authors declare there is no conflict of interest.

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