

## Spontaneous Prolapse of Submucosal Myoma in a Nulliparous

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### Abstract

We presented a rare case of spontaneous myoma prolapse in a nulliparous woman without sexual experience. She was known to have a huge lower segment uterine myoma measuring 7 × 5 cm about 3 months ago. During this menstruation, she had a sudden prolapse of uterine mass and was brought to the emergency department due to profuse vaginal bleeding. Emergent vaginal myomectomy was done and the specimen was confirmed histologically benign. She recovered uneventfully with no clinical evidence of pelvic organ prolapse or residual lesion in her uterus during subsequent follow-up. Vaginal myomectomy is the treatment of choice for a pedunculated submucosal myoma but caution should be taken due to risk of concomitant uterine prolapse. It is also prudent to consider the risk of malignancy in young women presenting with non-puerperal myoma prolapse.

**Keywords:** Prolapse; Non-puerperal; Nulliparous; Sub-mucosal

**Abbreviation:** BL: Bladder; CX: Cervix; EM: Endometrium; UT: Uterus

### Introduction

Prolapsed submucosal myoma is an emergent condition; woman might become anemic due to profuse bleeding. There is also a substantial risk of uterine inversion that might lead to abdominal pain and shock [1]. The true incidence of prolapsed submucosal myomas is unknown but two series have reported rates of 1-5% [2,3]. It is prudent for the gynecologist to make the right diagnosis and prompt surgical treatment is usually warranted to avoid morbidity. Here in, we presented a case of spontaneous prolapse of myoma in a nulliparous woman who had no specific medical history.

### Case Report

A 31-year-old, nulliparous woman without sexual experience, presented to the emergency department with a sudden prolapse of uterine mass during her menstruation. She had a normal body mass index (body weight 65 kg, body height 165 cm) and her latest gynecological scan about 3 months ago showed a lower segment uterine myoma about 7 × 5 cm (Figure 1). In this occasion, pelvic examination showed a rubbery vaginal mass at least 20 × 15 cm (Figure 2). Pre-operative echo scan revealed a huge lower uterine mass without evidence of uterine inversion. She appeared acutely ill and anemic (a drop of serum hemoglobin level from 10.7 g/dL to 8.2 g/dL within 7 hours) due to profuse vaginal bleeding. Emergent surgery was arranged. It was not easy to identify the pedicle of the mass since it presented as a large broad-based one. We first identified the uterine cavity using a uterine sound; the mass was then resected vaginally in pieces until the base was clearly visualized. Hemostasis was achieved using compression sutures and the cervical laceration repaired with 2-0 chromic suture (Figure 3). The specimen weighted 1100 gm and it was confirmed histologically benign. The patient recovered uneventfully with no clinical evidence of pelvic organ prolapse or residual lesion in her uterus during subsequent follow-up.

### Discussion

Vaginal myomectomy is the treatment of choice for a pedunculated submucosal myoma [4-5]. Golan et al reported a 95.6% success rate of this approach, the reason for failure was difficulty to reach the pedicle in non-pregnant women [5]. In this case, the myoma pedicle arose from lower uterine segment and the majority part of myoma protruded



**Figure 1:** An intramural myoma about 7 × 5 cm located over lower segment of posterior uterine wall.



**Figure 2:** A huge and disfigured prolapsed vaginal mass.

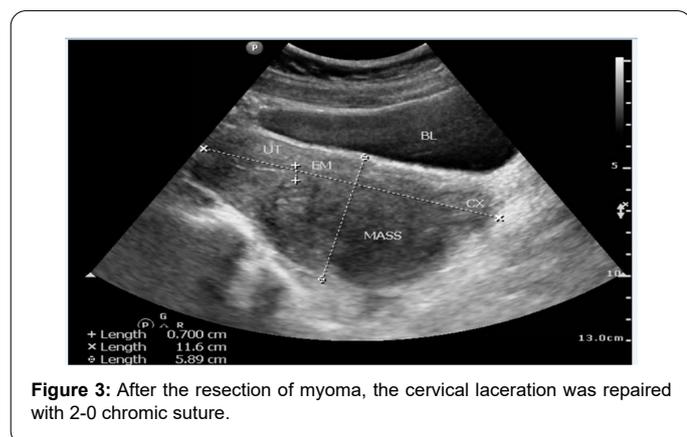
through a dilated cervix, making it feasible to be removed vaginally without the need for hysterectomy. Some advocated embolization

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**Figure 3:** After the resection of myoma, the cervical laceration was repaired with 2-0 chromic suture.

of uterine arteries before extracting large submucosal myoma to minimize the blood loss [6-7]. However, the impact of uterine artery embolization on fertility and pregnancy outcome remains questionable [8]. Hysteroscopic myomectomy is only preferred for submucosal myoma less than 4cm in diameter, otherwise multi-step surgeries may be needed for complete resection of the lesion [9].

It is crucial to recognize the risk of concomitant uterine inversion during myomectomy. Failure to reduce the inverted uterus may lead to persistent vaginal bleeding, often leading to hypovolemic shock, or lower abdominal pain and urinary retention. Non-puerperal uterine inversion is a rare condition, accounting for less than 20% of all uterine inversions [10]. Malignancy should be considered in young women and treated accordingly [10]. In this case, fertility preservation was priority due to young age and nulliparity. However, it is always prudent to inform the risk of malignancy that might warrant a second comprehensive staging operation during pre-operative counselling and consent.

## Conclusion

We hereby presented a case of non-puerperal prolapse of a huge uterine myoma in a young woman. It is important to identify concomitant risk of uterine inversion and fertility-sparing should be attempted before a definitive pathological confirmation is obtained.

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