# Vaginal Removal of Prolapsed Pedunculated Submucosal Myoma During Pregnancy

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# **ABSTRACT**

Pedunculated submucosal myomas are generally associated with infertility and are most often encountered during the preconception period. This report describes a 38-y-old pregnant woman in whom a pedunculated submucosal myoma resulted in preterm labor and was successfully removed vaginally at 26 wk gestation. The procedure described here is simple and quick and can be performed during pregnancy, if necessary.

Keywords: I pedunculated myoma; pregnancy; submucous myoma

## INTRODUCTION

Myomas in pregnancy are usually associated with threatened abortion, intrauterine growth retardation, abruptio placentae, fetal malpresentation, preterm labor, and pelvic pain.<sup>1</sup> Different types of fibroids may affect reproductive outcomes to varying degrees, however, causing infertility, recurrent miscarriage, or other pregnancy complications. An association has been reported between retroplacental submucous myomas and increased risks of fetal growth restriction, abruptio placentae, and fetal malpresentation.<sup>2</sup> Pedunculated submucosal myomas are generally associated with

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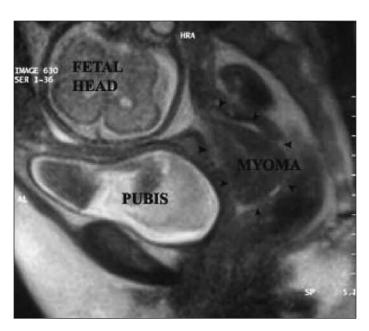
infertility and are usually encountered during the preconception period.<sup>3</sup> This report describes a pedunculated submucous myoma that caused preterm labor and was removed vaginally.

## **CASE REPORT**

A 38-y-old woman, gravida 2, para 1, was referred to the clinic at 26 wk gestation for lower abdominal pain and preterm labor. Her medical history included a cesarean section performed for a breech presentation 5 y previously. On gynecologic examination, a pedunculated mass protruding through the cervical canal into the vagina was noted. The external cervical os was dilated nearly 3 cm. Ultrasonography confirmed gestation at 26 wk. The patient had mild regular contractions, so tocolytic therapy was begun with the calcium channel blocker, nifedipine, to stop uterine contractions. Magnetic resonance imaging (MRI) revealed a  $6 \times 3$ -cm submucosal myoma that extended through the cervix into the vagina (Figure). Its pedicle was attached near the internal cervical os, far from the placental site and membranes.

The pedunculated myoma was grasped with a ring forceps under direct vision and was removed by twisting around its pedicle. Bleeding did not occur. The procedure was performed 4 h after admission. The postoperative course was uneventful. Tocolysis with nifedipine was continued for an additional 24 h. The patient was discharged 4 d after the procedure and was advised to rest at home and avoid strenuous activities.

Histologic analysis confirmed the diagnosis of a benign fibroid. After preterm labor began, the patient gave birth to a healthy baby girl who weighed 3000 g at 36 wk gestation. No pathologic signs were noted during the postpartum period.



MRI shows the uterus at 26 wk of pregnancy. A submucosal myoma ( $6\times3$  cm) through the cervix extends into the vagina.

### DISCUSSION

A significant increase in the incidence of threatened abortion, threatened preterm delivery, abruptio placentae, and pelvic pain has been reported in patients with myoma. A Katz et al<sup>5</sup> reported a 10% rate of pregnancy complications in women with myomas. Moreover, patients with submucous fibroids are at increased risk. Fetal growth retardation, abruptio placentae, and fetal malpresentation were reportedly increased in patients with submucous myomas; subserous or intramural fibroids had no influence on the course of pregnancy.<sup>2</sup>

When a submucous myoma becomes pedunculated within the uterine cavity, the natural tendency is for the uterus to try to expel it through the endocervical canal. Eventually, the cervix dilates. Even very large submucous pedunculated myomas can be delivered gradually through a markedly dilated cervix. Patients report cramping, lower abdominal pain, pressure and heaviness in the pelvis, and a thin, bloody, foul discharge, along with difficulty urinating and other symptoms.<sup>1</sup>

The primary symptom in the present case was severe cramping. The patient was not evaluated before or during pregnancy until the onset of symptoms. Therefore, it is unclear whether the myoma was delivered through the cervix just before symptom onset, and thus was the cause of severe cramping and preterm labor. The reported symptoms, including preterm labor, resolved dramatically, however, after the myoma had been removed, indicating that the prolapsed myoma may have been the cause of cramping.

Vaginal removal is the treatment of choice for a pedunculated submucous myoma, especially if it is delivered through the cervix. In a retrospective analysis of procedures performed over 10 y, Golan et al<sup>6</sup> concluded that the reason for failure of vaginal myomectomy was that it was difficult for the surgeon to reach the pedicle in nonpregnant women. MRI revealed that the pedicle of the myoma was attached at the lower segment of the uterus, and no association was shown between pedicle, placenta, and fetal membranes. This led clinicians to perform the procedure, which was simple and quick; after removal of the myoma, the symptoms disappeared.

Studies have described removal of myomas by laparoscopy or laparotomy during pregnancy.<sup>7,8</sup> The coexistence of a prolapsed, pedunculated cervical myoma with preterm premature rupture of membranes at 18 wk of gestation was reported by Oruc et al.<sup>9</sup> In that case, however, the authors performed a total abdominal hysterectomy because they were unable to reach the pedicle.

This is the first report to document immediate and late outcomes of vaginal removal of a prolapsed pedunculated submucosal myoma during pregnancy. Therefore, it is suggested that vaginal removal of the myoma should be considered if the patient has symptoms of preterm labor or pelvic pain, in cases where the pedicle has no association with fetal membranes.

In this case, it is unclear whether the myoma was prolapsed during pregnancy because the patient had not had any antenatal visits until the onset of preterm labor. In developing countries, patients must be encouraged to undergo gynecologic examination before planned pregnancies, so that problems such as submucosal myomas, which may complicate pregnancy, can be diagnosed and treated.

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