



Case Report

Spontaneous rupture of uterine during pregnancy after laparoscopic myomectomy: A case report

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ABSTRACT

The danger of future uterine rupture is a serious concern for women who become pregnant after uterine leiomyomectomy or adenomyomectomy, despite the fact that these procedures are commonly used to alleviate symptoms like dysmenorrhea or hypermenorrhea and improve fertility. Although it happens very infrequently, uterine rupture is the most dreaded pregnancy complication and is linked to a high rate of maternal and fetal morbidity and mortality. Here, we present a case of spontaneous uterine rupture during the third trimester of pregnancy.

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1. Background

The possibility of future uterine rupture is a significant concern even though uterine leiomyomectomy or adenomyomectomy is a well approved operation to treat symptoms like dysmenorrhea or hypermenorrhea to improve fertility. In females of reproductive age, uterine leiomyomas (also known as myomas or fibroids) are the most prevalent type of pelvic tumor. Medical therapy, non-excisional techniques like uterine artery embolization (UAE), magnetic resonance guided focused ultrasound, and surgery (such myomectomy, radiofrequency ablation, hysterectomy...) are all available to individuals who desire treatment.¹ The patient's preferences, surgical skill, and the characteristics of the myoma all play a role in the treatment decision. For patients with symptomatic intramural or sub serosal leiomyomas who want to have children in the future, laparoscopic myomectomy is typically preferred.^{2,3}

2. Case Report

A 37-year-old primigravid woman with gestational age of 34 weeks and 3 days referred to Shahid Beheshti hospital in Isfahan, Iran with an ultrasound examination that showed cystic center with maximum size of 60*45 mm on the upper and right level of the fundus; The abovementioned cyst changes its size with the pressure of the probe and changing the position of the patient and in the examination with color doppler, liquid jet can be seen and therefore, the above case can be caused by myometrial diastasis and amnion herniation. Also, FGR was diagnosed in fetus ultrasound. The Patient had a history of laparoscopic myomectomy 4 years before. It was written in the patient's post-operational note that during the operation, an 80*60 mm sub serosal myoma in the fundus of the uterus, was removed by laparoscopy and without the manipulation of endometrium.

The Patients physical examination were normal and all the lab data were within normal ranges. Upon examination of the abdomen, old laparoscopy scars were observed on the skin. In our center, the patient underwent ultrasound again which confirmed the findings of previous ultrasound and confirmed the fetus FGR and rupture of the uterus. Finally,

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patient went through caesarian and a healthy and viable infant was born.



Figure 1: Ultrasound image showing uterine rupture with a size of 2.3 cm and amniotic herniation in right fundus.



Figure 2: Mid-operation photo. Amniotic herniation in right fundus after cesarean delivery.

3. Discussion

Despite being extremely uncommon, uterine rupture during pregnancy is a catastrophic obstetric complication that is linked to high rates of maternal and fetal morbidity and mortality. Having uterine scars from prior c-sections or uterus procedures, such as myomectomy, adenomyomectomy, hysteroscopic surgery, or an operation to treat an ectopic pregnancy, is one of the most significant risk factors for uterine rupture during pregnancy.⁴ The time between adenomyomectomy and the occurrence of pregnancy is another element that affects the degree of our concern. Due to the difficulty of suturing a hysterotomy by laparoscopy and the critical role that appropriate stitch

placement plays in wound strength, some experts previously believed that the laparoscopic approach of myomectomy was not suited for women who desire to become pregnant.^{5,6} Although laparoscopy is a more difficult surgical procedure than laparotomy, it is also one of the safest due to the reduction of technical errors and the increasing experience of surgeons. A 5.3% risk of dehiscence was detected following abdominal myomectomy, compared to a 0.3-3.8% risk after a prior cesarean section and a 0-1% risk after a prior adenomyomectomy, when comparing the incidence of uterine rupture during pregnancy and delivery.^{7,8} It should be noted that ruptures of the pregnant uterus following LM usually take place after the 32nd week of gestation.

4. Conclusion

In light of the fact that dehiscence of the pregnant uterus can happen without showing signs of fetal distress, the authors' conclusion is that every pregnancy in women whose uteruses have already undergone surgery should be closely monitored. An incidental case of uterine rupture following myomectomy, laparoscopic surgical procedures have several benefits. As there is a dearth of valid scientific data at this time, more research on this topic is required. However, since there appears to be a low risk of spontaneous uterine rupture during pregnancy, myomectomy should not be avoided in young women who intend to become pregnant.

5. Consent Statement

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy

6. Conflict of Interest

None.

7. Source of Funding

None.

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