Silent Spontaneous uterine rupture after previous Cesarean Section and Myomectomy with delivery of a healthy newborn

Vito Starčević, Mislav Herman, Franjo Grgić, Vesna Sokol Karadjole, Marina Ivanišević

Case report

Introduction

Spontaneous uterine rupture is rare, but it is a life-threatening condition for both the mother and her fetus. Rupture occurs principally after onset of labour in women with hysterotomy scar. This occurs most commonly in the setting of classical cesarean section [1]. It is usually asymptomatic and that why it is called silent rupture. Generally, uterine rupture refers to a complete separation of all uterine layers, including the uterine serosa. The frequency of uterine rupture for women undergoing trial of labor is 0.3%. It is well known that rupture almost always occurs in women with uterine scars from previous cesarean deliveries but there are also other uterine surgical procedures that increase the risk of rupture during labour. In recent years, the frequency of uterine rupture after myomectomy has increased. One meta-analysis showed that the risk of uterine rupture during pregnancy after myomectomy was 0.6–0.8% [2,3].

Case report

We report a case of silent spontaneous uterine rupture, found during a scheduled repeat cesarean section at 38 weeks of gestation with delivery of healthy newborn. Patient had history of one first-trimester missed abortion (7 weeks) and one prior cesarean sections performed in year 2012. During cesarean section myomectomy was done and a necrotic fundal myoma measuring about 8 cm was removed. Her pregnancy was without complications. During her antenatal care she had first trimester screening test, regular vaginal examinations and ultrasound scans as well as oral glucose tolerance test in 24 week of gestation. From 37 weeks of gestation fetal wellbeing was monitored with cardiotocography (CTG). Fetal heart rate abnormalities in terms of variable decelerations were seen just before the scheduled cesarean section (Figure 1, 2). Patient had few episodes of abdominal pain and discomfort just before scheduled delivery date. She did not experience any uterine contractions prior to delivery. Upon entering the abdominal cavity via Pfannenstiel incision, a complete uterine rupture was seen at the prior myomectomy scar. The rupture was 6 cm long (Figure 3). Fetal parts were palpable through the protruding membrane. No active bleeding was noted at the edges of the uterine scar. A term female newborn, 3060 grams and 48 cm, was delivered through isthmic transverse uterine incision in cephalic presentation. Neonate’s APGAR at 1...
and 5 minutes were 10 and 10, respectively. Umbilical artery pH was 7.33. After placental expulsion, isthmic transverse uterine incision was closed with continuous sutures and uterine rupture with simple interrupted sutures (Figure 4, 5). Patient’s recovery course was uncomplicated and without need for blood transfusion. Postoperative hemoglobin was 91 g/dL. Patient and healthy newborn were discharged home in good condition on postoperative day 5.

Discussion

Uterine rupture is a serious complication of pregnancy and can cause significant maternal and perinatal morbidity. The initial signs and symptoms of uterine rupture are nonspecific, which makes the diagnosis difficult and sometimes delays definitive therapy. Clinical features of uterine rupture may include: fetal heart rate changes, abdominal pain and sometimes light vaginal bleeding. From this case, it is obvious that uterine rupture may occur without any precipitating signs or symptoms. In the last few years, several authors published a single case reports of uterine rupture in pregnancy after myomectomy [4]. One meta-analysis study reported that risk of uterine rupture after myomectomy is 0.75% and after cesarean section 0.32%, respectively [4,5]. There are two types of myomectomy surgical procedures, laparotomic myomectomy and laparoscopic myomectomy. According to one meta-analysis, the frequency of uterine dehiscence during pregnancy was 0.4% in laparotomic and 1.2% in laparoscopic myomectomy. It is considered that the risk of a uterine rupture following a myomectomy is not related to surgical technique (laparotomy or laparoscopy) or the size of myoma. It appears that uterine rupture occurs more frequently when performing an electrocauterization. In our case, an electrocauterization was performed during myomectomy. The uterine rupture after myomectomy occurs mainly during the pregnancy, although in rare cases it can happen during labour. Silent uterine rupture can be very difficult to diagnose in pregnancy. Clinical features of uterine rupture including abdominal pain, vaginal bleeding, maternal hypovolemic shock, or hemorrhage are usually absent.

Conclusion

This study reports a case of a silent uterine rupture that happened before labour in the context of a previous myomectomy scar. Uterine rupture may occur without any apparent signs or symptoms. Therefore, if there is any suspicion that uterine rupture might occur, intensive antenatal care is needed. Women with previous uterine surgical procedure should be advised of the risk of uterine rupture in subsequent pregnancies.

References

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Figure 3. Rupture of the uterine fundus

Figure 4. Suture of the uterine rupture

Figure 5. Uterine reconstruction after rupture


Correspondence address: Vito Starčević, MD PhD, Department of Obstetrics and Gynecology, University Clinical Centre Zagreb, Petrova 13, 10000 Zagreb, e-mail: vito.starcevic@gmail.com

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Klinika za ženske bolesti i porođaje, Klinički bolnički centar Zagreb, Medicinski fakultet Sveučilišta u Zagrebu

TIHA SPONTANA RUPTURA MATERNICE
U TRUDNOĆI S POROĐAJEM ZDRAVOG NOVOROĐENČETA

Vito Starčević, Mislav Herman, Franjo Grgić, Vesna Sokol Karadjole, Marina Ivanišević

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