1- Objective

Uterine rupture is a rare event, constituting an obstetric emergency, potentially threatening the life of the mother and fetus. Predisposing factors include multiparity, congenital uterine anomalies, advanced maternal age and previous history of cesarean section (the most prominent factor) – picture 1. However, in some cases, the rupture of a gravid uterus has no obvious cause. The incidence of spontaneous ruptures, in the absence of prior uterine surgery, has been increasing and is estimated to occur in 1: 5,700-20,000 pregnancies.

2- Methods

We report the recognition, intervention and outcome of a spontaneous uterine laceration of indeterminate origin.

Abdominal trauma
- Motor vehicle accidents;
- Maneuvers like external cephalic or internal podalic version.

Congenital disorders
- Congenital uterine anomalies;
- Ehlers-Danlos type IV.

Factors causing acquired weakness of the myometrium
- Strong use of uterotonics drugs;
- Previous uterine surgeries (myomectomy, metroplasty and cesarean section). 

Other factors
- Multiparity;
- Advanced maternal age;
- Malpresentation, especially transverse fetal position;
- Macrosomia and multiple gestation.

Picture 1. Risk factors for uterine rupture.

3- Results

A 28-year-old primpara at 34 weeks and 3 days gestation was admitted to the emergency room with complaints of constant abdominal lower quadrant pain and decreased perception of fetal movements. She had not experienced any abdominal trauma in the previous days. She was a healthy patient and her general medical history only revealed a previous orthopaedic surgery. The pregnancy had been uneventful to date.

On admission, the patient was hemodynamically stable and pelvic examination showed normal secretions, no vaginal bleeding and a bishop score of 4. The abdomen was depressible, with no signs of peritoneal irritation. Sonographic examination revealed a breech presentation fetus with good vitality, a normal amniotic fluid index and a placenta without apparent detachment areas. The cervical length was 26mm, without funneling.

The patient initiated analgesic medication, having improved the abdominal pain. Laboratory tests performed at the time of admission did not show any significant findings and hemoglobin level (Hg) was 10.04 g/dL (previous level of 10.5 g/dL one week before).

She was admitted to the birth unit for clinical and cardiotocographic surveillance.

During this period, two prolonged fetal heart rate (FHR) decelerations occurred, which were reversed with salbutamol: subsequent vaginal examination showed a bishop score of 6. An emergent cesarean section was decided due to the occurrence of a further prolonged deceleration of the FHR.

During the surgical procedure, shortly after the opening of the abdominal cavity, a medium volume hemoperitoneum was observed. The fetus was delivered after amniotomy in normal fashion. Neonate’s birthweight was 2437g and his APGAR at 1 and 5 minutes were 5 and 9, respectively. Further inspection of the abdominopelvic cavity revealed a laceration of the left posterolateral wall of the uterus, adjacent to the insertion of the utero-ovarian ligament, with haemorrhage difficult to control. The laceration was repaired with difficulty due to overlap of uterine atony.

Intraoperative arterial gasimetry: Hg 9.0 g/dL
Further intraoperative blood count: Hg 3.5 g/dL

➢ Uterine massage;
➢ Intravenous administration of 15 units of oxytocin diluted in saline solution and 10 direct oxytocin units;
➢ Sulprostone intravenous infusion;
➢ 800 mcg misoprostol administered rectally (in the immediate postoperative period).

➢ 5 units of red blood cells;
➢ 4 units of fresh frozen plasma;
➢ 1 unit of pooled platelets;
➢ 1g tranexamic acid.

No other complications were noticed during surgery. In the immediate postoperative period, the patient was admitted to the intensive care unit. She recovered without any complication and was discharged after 5 days of postoperative hospitalization.

4- Conclusion

This case report emphasizes that spontaneous uterine lacerations can occur during pregnancy with subtle and unspecific symptoms, even in patients without prior uterine surgery. A high index of suspicious is therefore required in making this diagnosis.

Bibliography references: