

A fetus and its gestational sac out of the uterus: a tomography description of unscarred uterus rupture

To the Editor,

We recently became interested in possible maternal risks correlated with medical termination of pregnancy, for foetal anomaly, in the second trimester, at about 20 weeks. Stewart et al. (1), in their cases series, described different complications associated with second trimester pregnancy termination. However, we would like to also share our experience, considering the rarity and potentially severity of our case. Indeed, we reported an asymptomatic uterine rupture in an unscarred uterus, after medically induced termination of pregnancy with Mifepristone and Misoprostol (2). The case was notable for the absence of both symptoms and risk factors.

Our case concerned a 42-year-old pregnant woman, gravida three para two, without uterine scars. She came to our clinic for the first hospital attendance at 21 weeks and 5 days of gestational age. The foetal scan showed an intrauterine growth restriction associated with polyhydramnios and omphalocele. These findings raised the clinical suspicion of Edward's syndrome, and a subsequent amniocentesis confirmed trisomy 18. Therefore, after consultation the parents requested pregnancy termination. According to our internal protocol, a single dose of oral Mifepristone 600 mg was given. Twenty-four hours later, the patient took Misoprostol 100 mcg, administered every 6 hours and totalling four doses. After an entire cycle of therapy, the labour had not started, and the patient was asymptomatic. Moreover, painkillers were not administered.

Considering the absence of any response to therapy, to better clarify the situation, a combined trans-vaginal and trans-abdominal ultrasonography was performed. This examination raised the suggestion of uterine rupture. In particular, the uterine wall was not detectable around the gestational sac. However, the uterus was not clearly identifiable, and no free fluid was detected. Considering the soft and non-painful uterus

in a stable patient, tomography was performed to better define the situation. A posterior uterine wall rupture was detected, as reported in Figure 1. A 3D-reconstruction (Figure 2) of the rupture confirmed the clinical condition. Therefore, the patient underwent laparotomy (Figure 3) to allow pregnancy

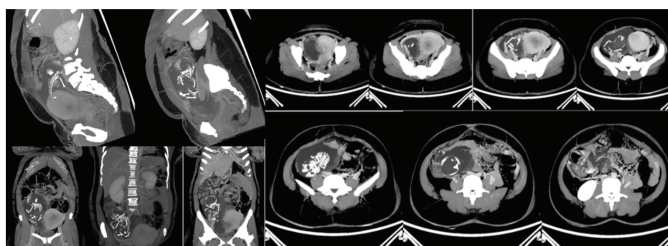


Figure 1. Tomography images of this case of uterine rupture

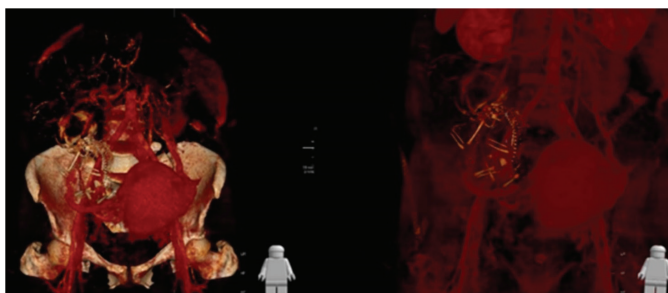


Figure 2. The 3D tomography reconstruction of the uterine rupture

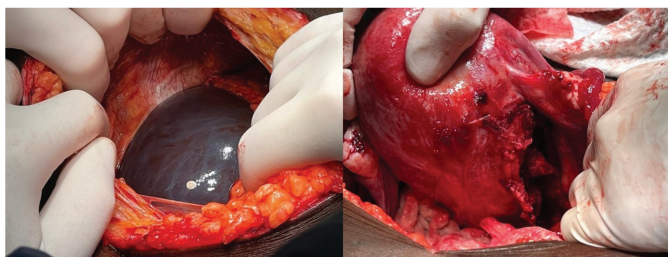


Figure 3. The surgical view: the amniotic sac outside the uterus and the uterine rupture

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Address for Correspondence: Paola Algeri
e.mail: dottorssa.algeri.p@gmail.com ORCID: orcid.org/0000-0002-1406-1061

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termination and uterine reconstruction. Total bleeding was limited, and blood transfusion was not necessary. The patient was discharged well and without complications.

We believe that our experience could be educational and highlight the possible differential diagnosis of uterine rupture in cases of absence of response to medical induction of labour for pregnancy termination in the second trimester, even in patients without symptoms and risk factors.

Uterine rupture has been described in literature as a very rare, spontaneous complication in unscarred uteri (3-6), but even more rarely as an iatrogenic complication. This case draws attention to this very rare condition. In addition, we would like to draw the readers' attention to the performance ultrasound in this situation, which raised the possibility of uterine rupture, but was not definitively diagnostic (7). Clinical signs and symptoms are the true guide for this diagnosis but in our case these were absent, making the diagnosis even more challenging.

Furthermore, even if clinical findings are more important than imaging in cases of uterine rupture, we would like to share our tomography images, which could be of interest. Figure 1, 2 show the gestational sac, containing the foetus, out of the uterus, in an otherwise well patient, which is extremely rare, and rarely documented with imaging. However, we must emphasize that tomography is not indicated to routinely investigate the diagnosis of uterine rupture, even if it will clarify an unclear diagnosis in a stable and asymptomatic patient, when clinical findings and ultrasound are not conclusive.

Paola Algeri¹, Marta Seca², Gianluigi Patelli³, Patrizia D'Oria¹

¹Department of Obstetrics and Gynaecology, ASST Bergamo EST-Bolognini Hospital, Bergamo, Italy

²Department of Obstetrics and Gynaecology, San Gerardo Hospital, University of Milano Bicocca, Monza, Italy

³Department of Radiology, ASST Bergamo EST-Bolognini Hospital, Bergamo, Italy

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