

(EP16.26)First-trimester intra-abdominal hemorrhage due to placenta percreta with successful continuation of pregnancy: a case report

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Introduction

Intra-abdominal hemorrhage caused by placenta percreta is a life-threatening condition, and termination of pregnancy (TOP) is often considered. We report a case in which the pregnancy was successfully continued despite intra-abdominal hemorrhage due to placenta percreta in the first trimester.

Case

A 38-year-old multigravida with a history of prior Caesarean section was transferred to our hospital because of severe abdominal pain and intra-abdominal hemorrhage at 15th gestational week (GW). She underwent emergency laparotomy. Intraoperatively, active bleeding was identified at the right edge of the previous Caesarean scar. A biopsy and Z-suture hemostasis were performed.

The total blood loss was 550 g. Pathological examination revealed trophoblastic tissue, leading to a diagnosis of placenta percreta. After surgery, we engaged in shared decision-making with the patient regarding whether to proceed with termination of pregnancy. However, she chose to continue the pregnancy.

Careful follow-up with serial ultrasonographic examinations was performed to assess placental invasion.

At 23rd GW, the placenta was located over the previous caesarean scar. Transabdominal color Doppler examination revealed marked hypervascularity at the placental implantation site, with numerous irregular lacunar vessels and bridging vessels traversing the myometrium toward the uterine serosa. Loss of the normal hypoechoic retroplacental zone and abnormal vascular invasion were suspected, raising concern for placenta percreta associated with a previous cesarean scar (Fig1-3). At 30th GW, MRI testing revealed placenta percreta (Fig.4).

At 35th GW, she was readmitted and subsequently underwent Caesarean section again at 37 weeks of gestation. Intraoperatively, maternal surface of placenta was clearly observed (Fig.5). A healthy female infant weighing 2,220g was delivered. The total blood loss was 5,700 g, and massive blood transfusion was required. She was discharged in stable condition 9 days after surgery.

Discussion

Placenta percreta is the most severe form of placenta accreta spectrum (PAS) and is strongly associated with previous cesarean delivery, particularly in women with placenta previa (1,2). Abnormal trophoblastic invasion at the uterine scar can result in massive hemorrhage and severe maternal morbidity (2,3). Early prenatal diagnosis by ultrasonography, with magnetic resonance imaging when necessary, is essential for appropriate management (2–4). Antenatal diagnosis allows delivery to be planned at a tertiary center with a multidisciplinary team, including obstetricians, anesthesiologists, urologists, and transfusion services (2–4). Planned cesarean hysterectomy before the onset of labor without attempting placental removal is currently the standard treatment for most patients with placenta percreta (3,4). This case highlights the importance of recognizing previous cesarean delivery as a major risk factor for PAS and demonstrates that timely diagnosis and multidisciplinary management are crucial for improving maternal and neonatal outcomes.

References

- 1.Silver RM, Landon MB, Rouse DJ, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstet Gynecol.* 2006;107(6):1226–1232.
- 2.Jauniaux E, Ayres-de-Campos D, Langhoff-Roos J, Fox KA, Collins S, FIGO Placenta Accreta Diagnosis and Management Expert Consensus Panel. FIGO consensus guidelines on placenta accreta spectrum disorders: Epidemiology and risk factors. *Int J Gynaecol Obstet.* 2019;146(1):12–16.
- 3.American College of Obstetricians and Gynecologists. Placenta Accreta Spectrum. *Obstetric Care Consensus No. 7. Obstet Gynecol.* 2018;132:e259–e275.
- 4.Royal College of Obstetricians and Gynaecologists. *Placenta Praevia and Placenta Accreta: Diagnosis and Management.* Green-top Guideline No. 27a. London: RCOG; 2018.

Conclusion

Continuous and careful ultrasonographic evaluation is essential for the successful continuation and completion of the pregnancy.

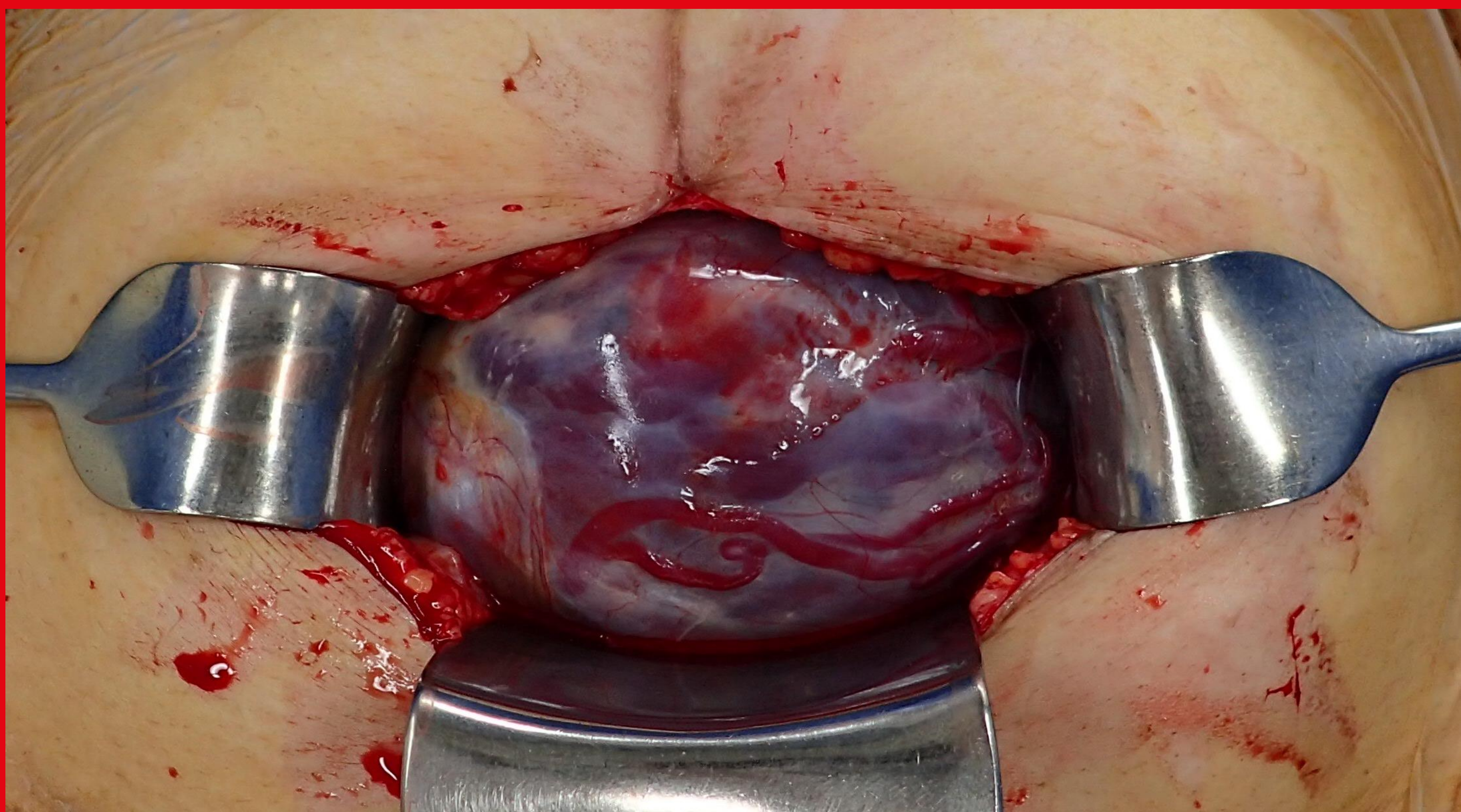


Figure 5. Intraoperative finding at C-Section

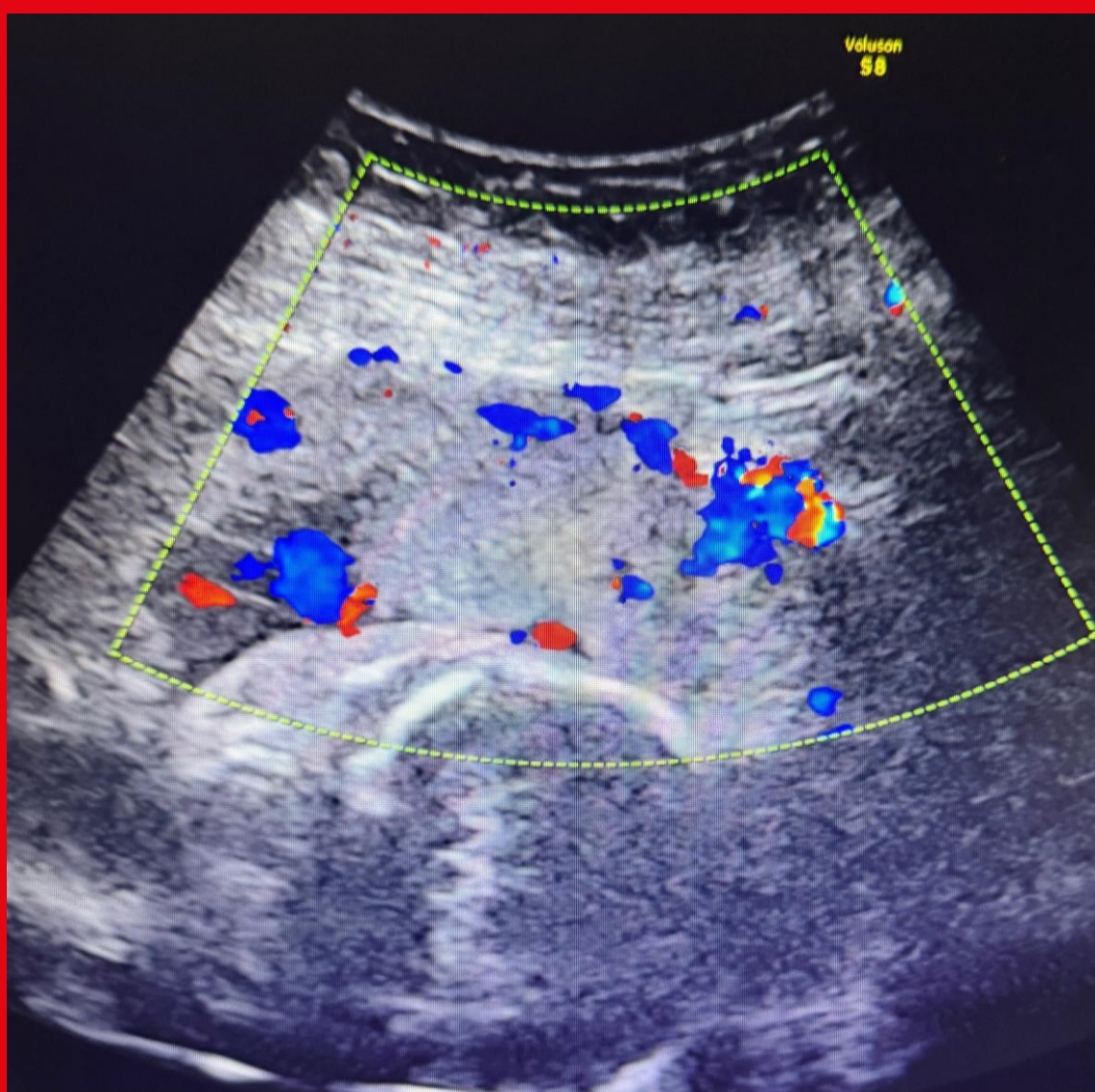


Figure 1. Transabdominal color Doppler examination at 23rd GW

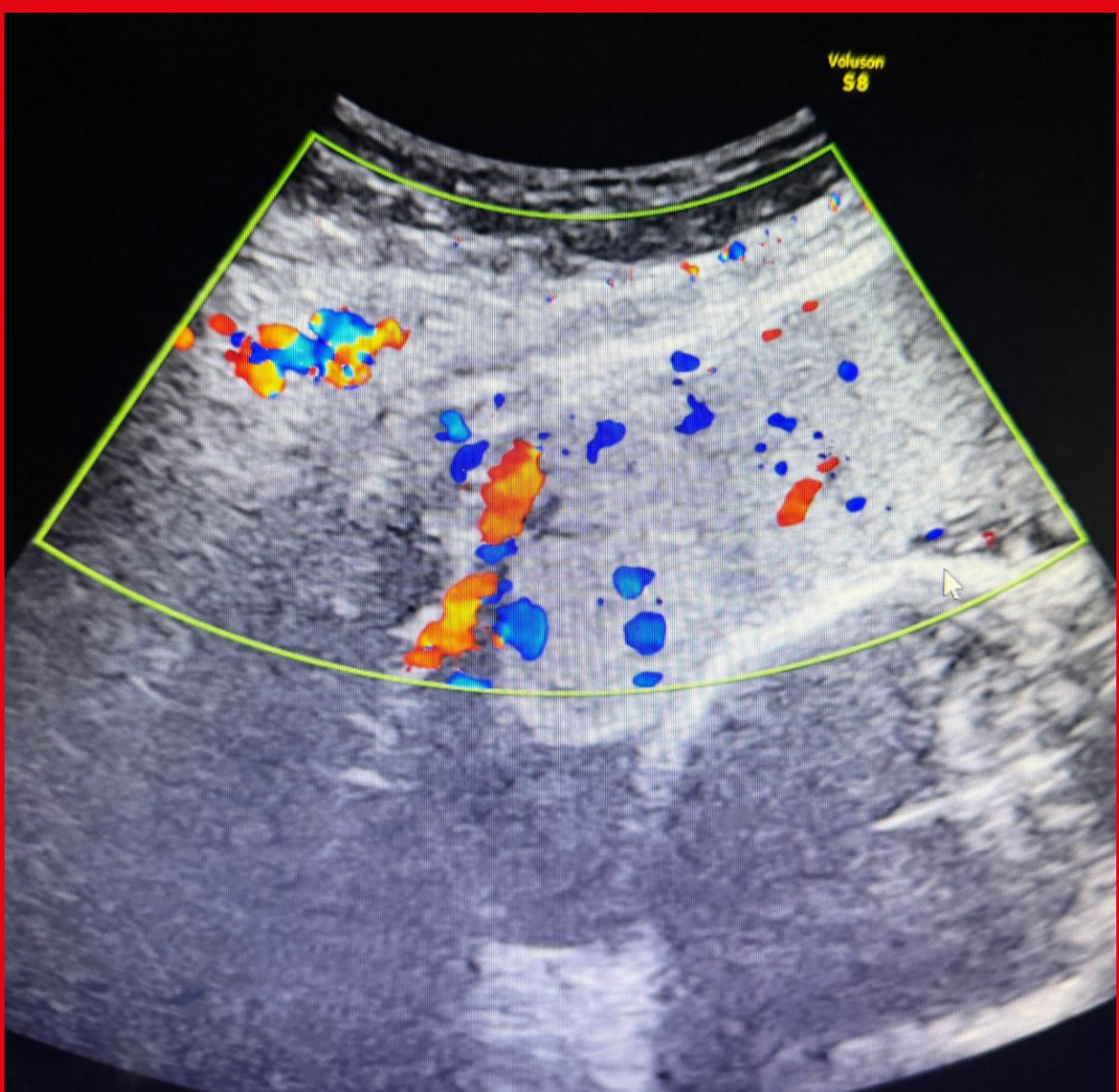


Figure 2. at 29th GW

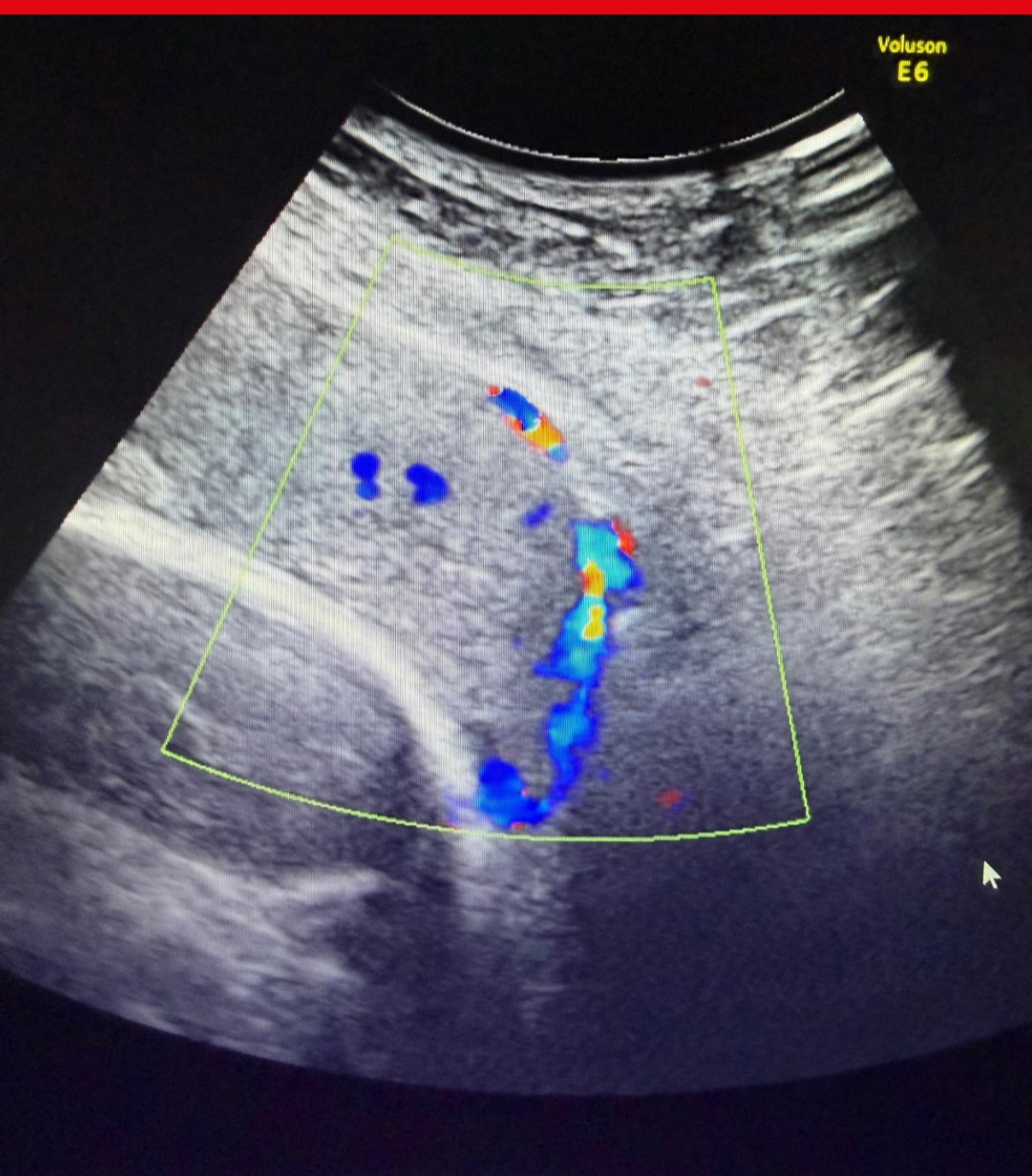


Figure 3. at 36th GW

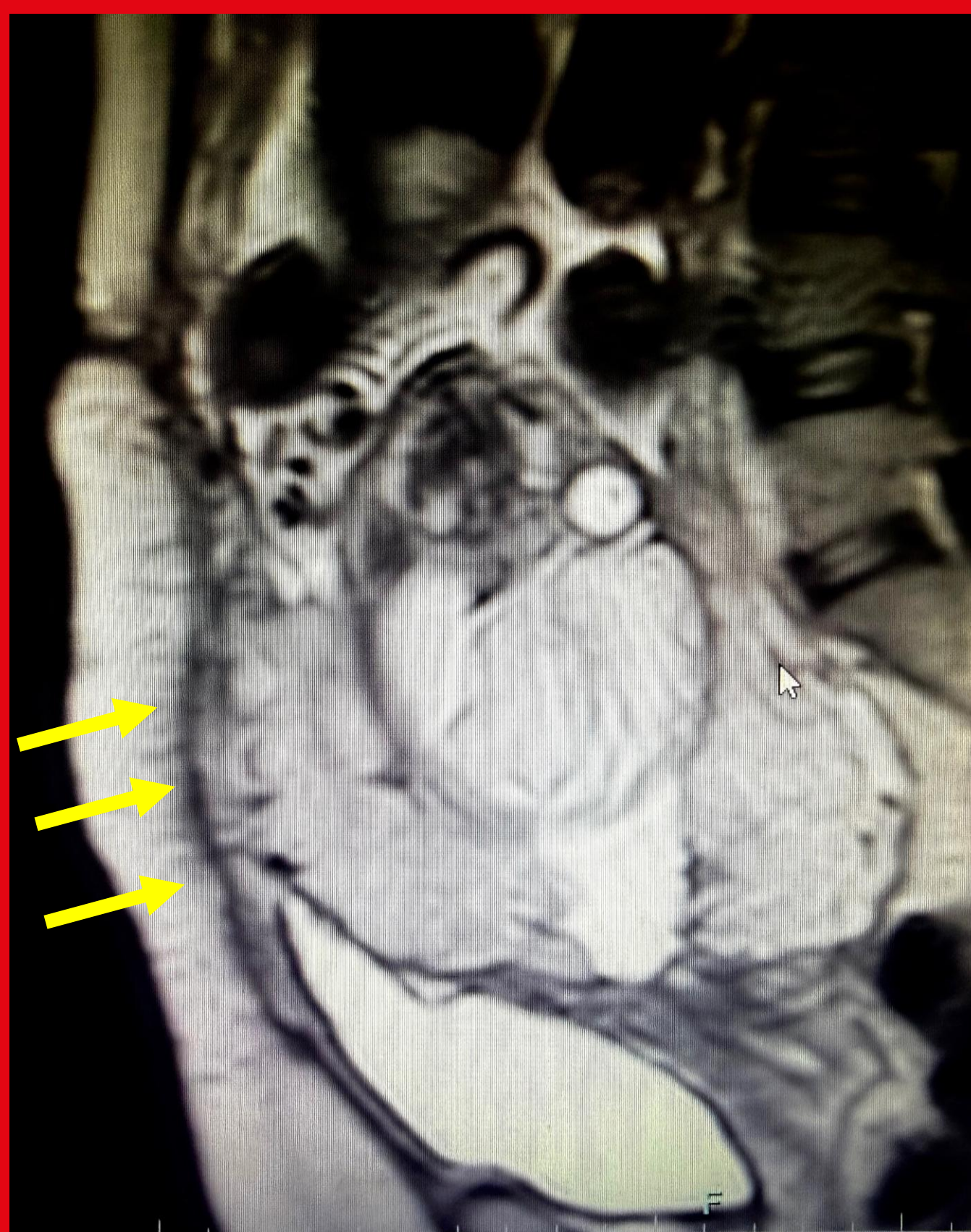


Figure 4. placenta is protruded to uterine wall (allowhead)