

## **Cesarean-hysterectomy in abnormally invasive placenta**

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### **Objective**

Abnormally invasive placenta (AIP) is a clinical term used to describe a placenta that does not separate spontaneously at delivery and cannot be removed without causing abnormally high blood loss. It encompasses the histopathological diagnoses of placenta accreta, placenta increta and placenta percreta. PAI is a life threatening condition, as it is associated with high rates of maternal and perinatal morbidity and mortality secondary to massive bleeding and visceral injuries (bladder, ureteral, intestinal. . . ) when performing an emergency caesarean section. Its incidence is rising since the main predisposing factor is the existence of placenta previa associated with a previous cesarean section. Due to the importance of this issue, attempts have been made to achieve an early diagnosis to prevent its consequences. In 2018, the 'European Working Group on Abnormally Invasive Placenta' (EW AIP) reported the ultrasound diagnostic criteria of AIP, looking for signs or images with sensitivity enough to establish a diagnostic suspicion. It has been proven that early ultrasound diagnosis improves survival rates and decreases associated complications, including massive transfusions, coagulopathy or stay in the ICU. Coordination of a multidisciplinary team is crucial to success. Although there are conservative approaches, the treatment of choice is the cesarean-hysterectomy in a single time. In both cases, there is consensus in not to attempt to detach the placenta from its bed, due to the increased risk of bleeding of this procedure.

### **Methods**

We present the case of a 33 year old woman, G2P0C1A0. In second trimester ultrasound a total, central occlusive previous placenta was identified, which did not meet the abnormally invasive placental criteria of the ISUOG at that moment. Patient was advised on the warning signs and evaluated every 4 weeks, remaining asymptomatic. At 33 week, loss of the "clear zone" (hypoechoic plane in the myometrium underneath placental bed) is identified, as well as a decrease in myometrial thickness. At 35 week abnormal placental lacunae, interruption of the bladder wall without placental bulging and an increase in subplacental and utero-vesical vascularity were identified, as well as the presence of utero-bladder-bridge vessels. Considering the high suspicion of placenta percreta, a multidisciplinary team (2 anesthetists, 1 obstetrician, 1 oncological gynecologist, 2 pediatricians, 1 hematologist, 1 urologist, nursing staff and operating room assistants) was coordinated. ICU was advised and mass transfusion protocol was activated. Patient was admitted at 37 week and a cesarean-hysterectomy was scheduled at the same surgical time. Patient signed the informed consent. The intervention was performed with general anesthesia. An infraumbilical midline incision was made, the abdominal wall was opened by planes and the uterus was exposed completely, confirming the presence of a central placenta previa percreta. A fundal caesarean was performed, with a longitudinal incision in the uterine fundus, avoiding contact with the placenta. A male fetus, 3400 g, was obtained, who needed neonatal ventilation due to the passage of maternal anesthesia and was transferred to the Neonatal Service. The cord of the placental face was sutured and the hysterotomy closed, leaving the placenta inside the uterine cavity. A total hysterectomy was performed using a vessel sealing device (LigaSure®) to reduce the risk of bleeding. Ureters were marked to reduce the risk of ureteral injury and hypogastric arteries were ligated to reduce the hemorrhagic risk. Bladder integrity was confirmed. The invasion of the bladder wall was not identified despite the bridge vessels. The total hysterectomy was carried out successfully. The quantified blood loss did not exceed 600 cc. Neither blood transfusion nor coagulation factors supplementation were needed. The surgical piece showed the extension of the placental invasion, occupying the entire lower face of the uterus.

### **Results**

Postoperative period was normal. Neither bleeding nor fever were registered. Patient and newborn were discharged on the third postoperative day. The care of the surgical wound was performed in Primary Health Care and no complications were reported.

### **Conclusion**

PAI is a life-threatening issue, as it is associated with high rates of maternal and perinatal morbidity and mortality. The main risk factor is the presence of placenta previa associated with a previous cesarean section. Early ultrasound diagnosis improves survival rates and decreases associated complications. Coordination of a multidisciplinary team is crucial for the successful approach of this entity. The treatment of choice is the cesarean-hysterectomy in a single time though conservative treatment can be considered in selected cases. Placenta must not be detached from its bed since this procedure increases the risk of hemorrhage.