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Placenta Percreta: Diagnosis and Prevention of Postpartum Hemorrhage and Urologic Injuries. A Case Report

Abstract

Introduction: The use of ureteral stent preoperatively placed by a urologist, and bilateral prophylactic occlusion balloon catheters placed in both internal iliac arteries could decrease the incidence of massive hemorrhage and high risk of ureteral injury during cesarean section and hysterectomy in cases of placenta percreta.

Materials and Method: Placenta percreta is a rare obstetric condition with the risk of massive intraoperative hemorrhage and urologic complications. Previous cesarean deliveries is the most important risk factor. Placenta percreta has an incidence of only 0.008%. Although it is difficult to diagnose placenta accrete antenataly, an accurate diagnosis is one of the most important objectives for the successful management of maternal hemorrhage; this can be achieved using magnetic resonance imaging and ultrasonography. The use of ureteral stent preoperatively placed by an urologist and bilateral prophylactic occlusion balloon catheters placed in both internal iliac arteries could decrease the incidence of massive hemorrhage and high risk of ureteral injury during cesarean section and hysterectomy.

Results: A 37-year-old woman (gravida 3, para 3) was diagnosed with placenta previa and ultrasonographic findings and magnetic resonance imaging revealed high risk for placenta percreta. Fetal growth was appropriate for gestational age. She had a history of 3 cesarean deliveries. At 32 weeks of gestation she presented a brief episode of vaginal bleeding. The patient was admitted and fetal lung maturity treatment was carried out. At 34 weeks of gestation it was decided to end the pregnancy by cesarean section. Preoperatively a cystoscopy was practised and no bladder invasion by placenta was found. An ureteral stent was placed by a urologist. Owing to the risk of high blood loss during placentaion, bilateral prophylactic occlusion balloon catheters were placed in both internal iliac arteries followed by cesarean section. Laparotomy revealed large blood vessels and the placenta was observed through the anterior uterine wall. An incision in the uterine wall and through the placenta was performed and a healthy male preterm infant of 2100g and Apgar test 9/10/10 was born. After delivery, as it was impossible to separate the placenta from the uterus, we proceeded to carry out a hysterectomy. The balloons were inflated previously and the bleeding decreased significantly. A total hysterectomy with minimal blood loss was completed. Hematological data: previous to cesarean hysterectomy: hemoglobin: 12.6 g/dl; hematocrit: 37.9%; platelets: 181,000. After hysterectomy: hemoglobin 9.7 g/dl; hematocrit 29.5%. Two packed red blood cells were transfused. After transfusion, the results were, hb: 11.1 g/dl; hematocrit: 33 %; platelets: 145,000.

Conclusion: In this case of placenta percreta, a rare obstetric condition with the risk of massive intraoperative hemorrhage, the use of prophylactic occlusion balloon catheters reduced the need for massive transfusion. Placenta percreta is a risk factor for urologic injuries during cesarean hysterectomy. Preoperatively cystoscopy and ureteral stents reduced the risk for urologic complications.

Keywords: Placenta percreta; Cesarean hysterectomy; Ureteral stents; Occlusion balloon catheters