

## **A Roadmap to Safety: Decreased Intraoperative Injury with a Multidisciplinary Approach to Placenta Accreta**

Rachel Levy, MD – UCSF

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Topic: Quality & Healthcare systems

### **Objectives**

To assess the impact of an evidence-based, multidisciplinary protocol for management of placenta accreta spectrum disorder (PASD) on perioperative complications in patients undergoing cesarean hysterectomy.

### **Methods**

This was a retrospective cohort study of patients who underwent cesarean hysterectomy for suspected PASD, comparing perioperative outcomes pre and post-implementation of the Multidisciplinary Approach to the Placenta Service (MAPS). We abstracted data from the medical records of all adult patients who underwent cesarean hysterectomy between 2012 and 2022. Only patients who were suspected to have PASD on prenatal imaging were included in the analysis. Proportions are compared using chi-square tests.

### **Results**

Between 2012 and 2022, 80 patients with suspected PASD underwent cesarean hysterectomy with 40 (50%) before and 40 (50%) after implementation of the MAPS protocol. There were no differences between the two cohorts with respect to age, gestational age at delivery, body mass index and prior uterine surgery. After implementation of the MAPS protocol, the rate of intraoperative complications decreased (42.5 vs 12.5%,  $p=0.045$ ). Subgroup analysis demonstrated decreased intraoperative complications for scheduled and urgent cases (37.5 vs 13.3%,  $p=0.03$  scheduled; 62.5 vs 10.0%,  $p=0.02$  urgent) and for patients with placenta accreta spectrum (PAS) Grade 2 or 3, but not those with PAS Grade 1 on final pathology diagnosis (53.6 vs 13.8% PAS Grade 2 or 3,  $p<0.01$ ). There were no differences in blood loss, transfusion rate, postoperative complications, rate of intensive care unit (ICU) admission or overall length of stay between groups. In total, 46 patients underwent ureteral stent placement (10 pre- and 36 post-MAPS) and 36 patients underwent uterine artery embolization (UAE) (9 pre- and 27 post-MAPS). Patients who underwent either of these steps experienced fewer complications and smaller rate of ICU admission compared to those who underwent the same step prior to implementation of the MAPS protocol.

### **Conclusions**

Implementation of our MAPS protocol was associated with reduced rates of intraoperative injury, particularly for patients with more severe pathology. Stent placement and UAE in patients with suspected PASD may contribute to this outcome.

Abstract Table or Graph

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