Introduction

The incidence of placenta accreta (PA) has been steadily increasing from 0.08% 30 years ago to 0.3% currently. PA can lead to severe hemorrhage and paraplegia. Placenta previa (PP) is also associated with risk for major hemorrhage and requires careful antenatal planning prior to delivery.

It is uncertain whether anesthesiologists use different approaches for the anesthetic management of patients with PP and PA.

We conducted a survey of all Israeli obstetric anesthesia units and representative of their antenatal and perioperative practices, including routine use of ultrasound and MRI, multidisciplinary meetings held prior to cesarean delivery.

We assumed that the rate of general anesthesia is higher for women with PA than for women with PP.

Methods

We surveyed all 26 Israeli hospitals with a labor and delivery unit by directly contacting the representatives of obstetric anesthesia services in every department.

Each director surveyed provided information about the anesthesia and transfusion management in their labor and delivery units for three types of abnormal placental location based on antenatal ultrasound imaging: PP, low suspicion for PA, and high suspicion for PA.

The primary study endpoint was the anesthesia mode for cesarean delivery for patients with PP and PA.

Secondary outcomes:

- Preoperative management approaches, including: the use of ultrasound and MRI, multidisciplinary meetings held prior to cesarean delivery for PA;
- Intraoperative approaches, including: availability of a massive transfusion protocol and preoperative blood products, intravascular lines (central/peripheral), the use of thromboelastography and cell saver use.

For each institution, representatives provided estimates for the annual delivery volume, annual number of PA cases managed per year.

Results (I)

We identified 27 labor and delivery units in Israel; 26 representatives were surveyed between January 2014 to January 2015.

- The response rate was 100% and there are no missing items for any survey question.
- Among the representatives, 12/26 (46%) units manage more than 5 PA cases annually.
- Representatives reported that a massive transfusion protocol is available in 22/26 (85%) units, and thromboelastography is available in 14/26 (54%) units. A cell saver is available in 5/26 (19%) units and used routinely in 22/26 (8%) units for PA cases.

Results (II)

- Perioperative anesthesia practices were performed by the unit representative for PP, low suspicion, and high suspicion PA are summarized in Table 2.
- Representatives reported that spinal anesthesia is performed for PP in two-thirds of units.
- Most representatives reported that general anesthesia is used for PA, with 18/26 (69%) units performing general anesthesia for all low suspicion cases of PA and 22/26 (86%) units performing general anesthesia for all high suspicion cases of PA.

Results (III)

- The gestational age at which women with PA, are typically delivered by cesarean delivery varies across hospitals. Nearly two-thirds of units, 17/26 (65%) deliver women between 36-38 weeks gestational age. Delivery rates are lower for women between 36 weeks and after 38 weeks' gestational age (31% and 4% respectively).
- Multidisciplinary antenatal planning occurs in 21/26 (81%) units for high suspicion PA cases.
- All 12 centers that manage over 5 PA cases per year are higher delivery volume centers. There are no differences in hospital-level practices between centers that manage below or equal 5 PA cases versus centers that manage above 5 PA cases per year including: multidisciplinary meetings held prior to cesarean delivery for PA, timing of elective caesarean delivery, cell saver use, blood replacement strategy, and point-of-care coagulation monitoring with thromboelastography (TEG).

Conclusions

- This survey comprises contemporary data on anesthesiologists practices and preferences for managing patients with PP and PA in Israel.
- Our findings indicate that all Israeli labor and delivery units manage abnormal placental cases; however multidisciplinary team strategies for managing women with PP and PA vary between units, particularly the use of cell salvage.
- Although neuraxial anesthesia is the most popular anesthesia choice for PP only two-thirds of units use spinal, and this is lower than may be expected from other institutions.
- The high rate of general anesthesia for PA is not consistent with recommendations from leading academic centers in the United States that favor regional anesthesia for PA.

Authors

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