Massive Transfusion during Cesarean Hysterectomy in a patient with Placenta Accreta Spectrum with CSE Double-Segment Technique

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Background

- Intraoperative preparation for massive hemorrhage is a critical aspect of anesthetic care for patients with PAS
- Massive hemorrhage and massive transfusion risk are key factors to take into account when preparing the anesthetic approach
- 30% of the PAS cases managed with neuraxial anesthesia could require conversion to GA, primarily due to major bleeding or patient discomfort
- Spinal-epidural (CSE) double segment technique has been associated with lower rates of GA conversion compared to epidural



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- 40 y, G4P2, 2 previous CD, late diagnosis and transfer to Sinai, BMI 32, anemia (Hgb ??). MRI showing major placenta previa and placenta percreta with bilateral parametrial extension and suspicious of bladder involvement
- Admitted at 37+4 weeks for hemoglobin optimization
- Surgical plan at 38+2 weeks: Supraumbilical midline laparotomy for Cesarean delivery + bilateral internal iliac artery ligation + hysterectomy + bilateral salpingectomy
- Anesthetic plan: A-line + 3 IV's + Cell Saver + TXA
- Blood products in the OR
- Neuraxial anesthetic: US guided thoracic epidural + spinal







Incision

• 11:05 - 1 gm TXA administered Supraumbilical incision with extensive lysis of adhesions

Massive Bleeding

- Extensive hemorrhage after bladder dissection
- Internal iliac ligation (clamped) and aortic compression applied
- Plan was to convert to GA but patient refused
- bladder resection

Anesthesia

- Cell Saver + blood products available in OR
- 3 IVs + Arterial line
- T10-T11 Epidural -> confirmed with pressure transducer
- L3-L4 spinal
- Foley catheter
- T4 level to ice and pinprick and motor block achieved

Maintenance & Delivery

- 11:15 First epidural top with lidocaine 2% 5 ml
- 11:45: 2nd epidural top up
- Vasopressors infusion/boluses
- 12:00: Delivery
- Apgar 8/9



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- Urgent consultation to urology->
- hemostasis achieved without

EBL 10.5 L **ICU** postop

- Surgery finished at 17:30
- Anesthesia time: 603 minutes
- Surgical EBL: 10,500 ml
- Transferred to ICU
- ICU for 8 hours

Code Omega

• 13:00 - Code Omega • Cristaloids: 4600 ml (RL) • Coloids: HES 1000 ml • RBC 1900 ml (7 U) • Cell Saver: 5130 ml • Fibrinogen 300 ml (6 gm) • FFP 2000 ml (7 U) Platelets 313 ml (1 U) Calcium chloride 3 gm

Lab Results

- Intraop Lab results:
- > Hb: 84
- Platelet count: 94
- > INR: 1.6
- > Lactate: 2.0
- Patient remained stable during the event

Postop

- Pain well controlled with PCEA \rightarrow removed 36 hours
- Epimorph repeated
- Discharged home at 72 hours postop



Learning Points



CSE DS technique can provide safe intraoperative anesthesia with excellent postoperative analgesia options



Case discussion and briefing before surgery remains crucial to achieve patient expectations

Mode of neuraxial anesthetic should be chosen taking into account different factors such as patient expectations during and after surgery, safety and proper preparation.



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Aligning anesthesia goals with patient expectations leads to a successful patient experience



Conversion to GA can be accomplished with shared decison making even during hemorrhage



