A Tale of Two General Anesthetics for Cesarean Section in Super Morbidly Obese Patient with BMI 104 kg/m^2

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Case Description #1 – CD with GA using Sevoflurane and N_2O

- 28-year-old G1P0 at 37w5d with Class III Obesity (BMI 102)
- PMH:
  - Chronic HTN
  - Gestational DM
  - Recurrent back soft tissue abscesses
- Presented after a fall in AFib with RVR
- On HD#2 classical CD was indicated for SIPE with severe features.

Course

Unsuccessful Neuraxial Attempts

GA initiated with RSI and intubation with video laryngoscopy

Initial maintenance with Sevoflurane and N_2O

Persistent desaturation → N_2O discontinuation and increased sevo concentration

Complications

- 3.3 L EBL and hemodynamic instability →
  - Arterial line and central line placement
  - High dose norepinephrine infusion
  - Transfusion 3 PRBCs and 1 cryo
- Postoperative ventilation and ICU admission
- DC from ICU POD#1, and from Hospital POD#3

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Case Description #2 – CD with GA using TIVA

- 29-year-old G2P1 at 37w2d (BMI 104)

Plan:

- Due to PMH of PPH and ICU admission, plan included:
  - Arterial line
  - Large bore IV access
  - Double neuraxial catheter technique (lumbar CSE and thoracic epidural) due to supraumbilical approach

Course

Patient found to have large soft tissue abscess

Plan transitioned to GA → RSI with video laryngoscopy

TIVA initiated with propofol infusion and adjuncts of ketamine, hydromorphone, and midazolam

Propofol infusion rate was set to adjusted body weight

Complications

- 2L EBL
- Patient was extubated to nasal positive pressure (SuperNO2VA,Vyaire Medical)
- Transitioned to CPAP in PACU
- POD#1 → CXR demonstrated pulmonary edema in setting of SIPE
- POD#4 → patient discharged on furosemide

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What is the preferred method of anesthesia for cesarean delivery in patients with significant obesity?

- Neuraxial anesthesia is preferred due to increased risks including:
  - Difficult airway
  - Postoperative ventilation
  - Post partum hemorrhage
- US guided neuraxial might be indicated

What is the double catheter technique?

- Lumbar CSE → provides denser surgical block in thoracic region for supraumbilical incision
- Thoracic epidural → provides better postoperative pain control

What about when GA is necessary?

- TIVA may facilitate optimal recovery by avoiding nitrous oxide and sevoflurane, decreasing the risks of desaturation, PPH, postop ventilation, and unplanned ICU admission.

TIVA Dosing:

- In setting of significant obesity, dosing of propofol infusion could be set to adjusted body weight due to concerns for underdosing with ideal body weight and for prolonged emergence using actual body weight.