

## **C-32 My Patient Has a Labor Epidural, and Needs an Urgent but Not Emergent Primary Cesarean Delivery: What Are the Best Anesthetic Options and Expected Risks?**

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### **Objective**

***After completion of this session, the participant will be able to:***

- Formulate an anesthetic plan for the patient who failed a trial of labor and now needs an unscheduled Cesarean delivery.

### **Case Stem Question**

This is a 27-year-old G3P2 in active labor at 39 weeks. She requested and received an epidural labor analgesic from one of your partners 12 hours ago at a cervical dilation of 4 cm. She is dilated to 6 cm now, but the fetus is not engaged in the pelvis. Several hours ago, the obstetrician added IV oxytocin augmentation without a discernable improvement in the progress of labor. The fetal heart rate (FHR) monitoring had been encouraging until the past hour, and since then the short-term variability has decreased with rare late decelerations. The obstetrician is stopping the IV oxytocin. She wants to perform a primary cesarean for arrest of labor, and would like to start in the next 60 minutes.

You review the electronic medical record and find that this patient is 5'3" tall with a current body weight of 188 lb, and no significant past medical problems. As you enter the labor room to discuss the upcoming cesarean anesthetic, the patient is sitting up in bed crying and her surrounding family members look upset. She turns to you and says "I didn't want a C-section!".

You and the patient agree to conversion of the epidural analgesic to an epidural anesthetic with medications through the existing epidural catheter. In the interest of time-efficiency, you begin dosing the epidural catheter in the labor room and continue during transport to the OB OR. Halfway down the hallway to the OR, the patient is suddenly unresponsive.

You start running with the stretcher and arrive in the OB OR at the same time as the obstetrician, circulating nurse and scrub tech. As you safely position the patient on the OR bed, you are supporting her ventilation with a mask/self-inflating bag/100% oxygen. She has a strong peripheral pulse, and the FHR by doppler is 130 bpm. The OB is prepping the abdomen for a stat cesarean.

You verbally reassure the unresponsive patient, then induce general anesthesia and intubate the patient on the first attempt.

The remainder of the surgery and general anesthetic are unremarkable, with the newborn crying on the surgical field and Apgar scores of 8 and 9. For once, you are pleased that this obstetrician is a very slow surgeon, helping the neuraxial block to resolve by the end of the case. However, you are mentally arguing with yourself about the anesthetic choice for this cesarean delivery.

### **Guiding Questions for Discussion**

Question #1: How will you reassure this patient, who is upset that her delivery plan has changed?

Question #2: What additional preoperative information will you gain from the patient by interviewing and examining her?

Question #3: Up to this point, what aspects of the epidural analgesic performance will influence the cesarean anesthetic choices that you offer the patient?

Question #4: Assuming that you and the patient agree on using the existing epidural catheter to convert the block from epidural analgesia to epidural anesthesia, what local anesthetic and opioid will you choose and why?

Question #5: What are the likely causes of the emergency during transport?

Question #6: After the induction of general anesthesia, should the patient be in a head-down or head-up position to help the block resolve as soon as possible?

Question #7: Instead of epidural conversion, you could have advised the patient preoperatively to consent to a spinal anesthetic after removal of the epidural catheter. What are the risks from this approach and how likely are emergent complications?

Question #8: When you consented the patient for epidural anesthesia preoperatively, did you establish a backup anesthetic plan and what was it?

### **References**

1. Li P, Ma X, Han S, et al. Risk factors for failure of conversion from epidural labor analgesia to cesarean section anesthesia and general anesthesia incidence: an updated meta-analysis. *J Maternal-Fetal Neonat Med.* 2023; 36: 2278020.
2. Reschke MM, Monks DT, Varaday SS, et al. Choice of local anaesthetic for epidural caesarean section: a Bayesian network meta-analysis. *Anaesthesia.* 2020; 75: 674-82.
3. Einhorn LM, Habib AS. Evaluation of failed and high blocks associated with spinal anesthesia for cesarean delivery following inadequate labour epidural: a retrospective cohort study. *Can J Anesth.* 2016; 63:1170-8.