

Anesthetic Management of Parturients with Severe Factor XI Deficiency (FXID)

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- ❖ Expanded prenatal genetic testing has led to increased recognition of FXID
- ❖ No consensus on FXI level necessary for neuraxial anesthesia
- ❖ Severe FXID defined as FXI level <15%
- ❖ Bleeding history, not FXI level or PTT, correlates with bleeding tendency^{1,2}
- ❖ No reported cases of epidural or spinal hematoma
- ❖ Data suggests, if non-bleeding phenotype, neuraxial anesthesia is safe if FXI level ≥ 30 IU/dL³

Case Presentations

Patient A

33yo G1P0 at 38+5; third trimester FXI level 5.7%

Non-bleeding phenotype; two prior surgeries without bleeding complications

Received 20cc/kg of FFP with repeat FXI level of 31

Labor epidural placed without complications

Duration from FFP administration to delivery: 21 hr

Delivery outcome: NSVD with EBL 300cc

Patient B

30yo G1P0 at 39+1; third trimester FXI level 12%

Non-bleeding phenotype; prior dental surgery without bleeding complications

Received 15cc/kg of FFP with repeat FXI level of 29-> additional 5cc/kg FFP administered

Labor epidural placed without complications

Duration from FFP administration to delivery: 7.5 hr

Delivery outcome: NSVD with EBL 400cc

* In both cases, on postpartum day 1, FFP was administered to target a FXI level of ≥ 30 IU/dL prior to removal of the epidural catheter

- ❖ Individualized, patient-centered approach is paramount
- ❖ Personal history of bleeding is the strongest risk factor for obstetric bleeding events^{1,2}
- ❖ If possible, avoid concurrent FFP and TXA⁴
- ❖ Correction of a prolonged aPTT does not need to be shown after FFP therapy^{1,3}
- ❖ Factor XI half-life variability; 36-60 hours⁵
- ❖ Is there a role for viscoelastic testing to guide management?
- ❖ Our approach:
 - ❖ Multidisciplinary team involving hematology, anesthesiology, and obstetrics
 - ❖ Determine bleeding phenotype, measure 3rd trimester FXI level, and perform full hematologic workup
 - ❖ In patients with severe FXI deficiency (<15%), administer 15-20cc/kg FFP with target FXI level ≥ 30 IU/dL
 - ❖ Offer epidural or spinal anesthetic within 6 hours of FFP
 - ❖ If needed, administer FFP to target a FXI level of ≥ 30 IU/dL prior to removal of the epidural catheter

1. *Anesth Analg*. 2009;108(6):1882-1885.

2. *Blood Adv*. 2023;7(10):1967-1975.

3. *Res Pract Thromb Haemost*. 2024;8(4):102462.

4. *Clin Appl Thromb Hemost*. 2010;16(2):209-13.

5. *Haemophilia*. 2008; 14(6):1183-1189.