

High risk delivery in a patient with significant hemoptysis: a neuraxial strategy supported by inhaled tranexamic acid

Kenneth Nguyen, DO; Jessica Ansari, MD; Phillip Callihan, MD, PhD

Department of Anesthesiology, Perioperative, and Pain Medicine · Stanford Health Care

Background

- Hemoptysis is rare in pregnancy and presents unique anesthetic challenges
- Tranexamic acid (TXA) has been used as a noninvasive method to manage hemoptysis

Case Presentation

- 32yo G1P0 at 38 weeks + 5 days presents to the ED with hemoptysis (blood loss of 250-500mL)
- Significant hypoxemia with SpO2 levels falling into the mid-80s

Clinical Course

- Treated with inhaled TXA with resolution of gross hemoptysis. However, cough remained productive of clotted blood with intermittent desaturation events when supine
- CT angiography was negative for pulmonary embolism but showed right sided pulmonary debris
- Flexible laryngoscopy showed prominent subglottic and interarytenoid vessels
- Interventional pulmonology recommended bronchoscopy during cesarean delivery under GA
- Primary concern: airway instrumentation and intubation with large ETT > catastrophic airway hemorrhage
- Plan - cesarean delivery under neuraxial anesthesia with interventional pulmonology available for emergent bronchoscopy



Stanford
MEDICINE

Division of Obstetric Anesthesiology

Oxymetazoline and
dexmedetomidine pretreatment

Oxygenation optimized using
humidified high flow nasal cannula

Successful reduced dose CSE with
9mg intrathecal (IT) bupivacaine,
15mcg IT fentanyl, + 100mcg IT
morphine

No episodes of hemoptysis during
cesarean delivery

Bronchoscopy on PPD3 revealed
RLL vascular malformation

Discussion

Consider nebulized TXA for hemoptysis in pregnancy

Avoid emergent airway instrumentation in pregnant patients with airway vascular malformations

Manage risk with appropriate timing for timing of bronchoscopy