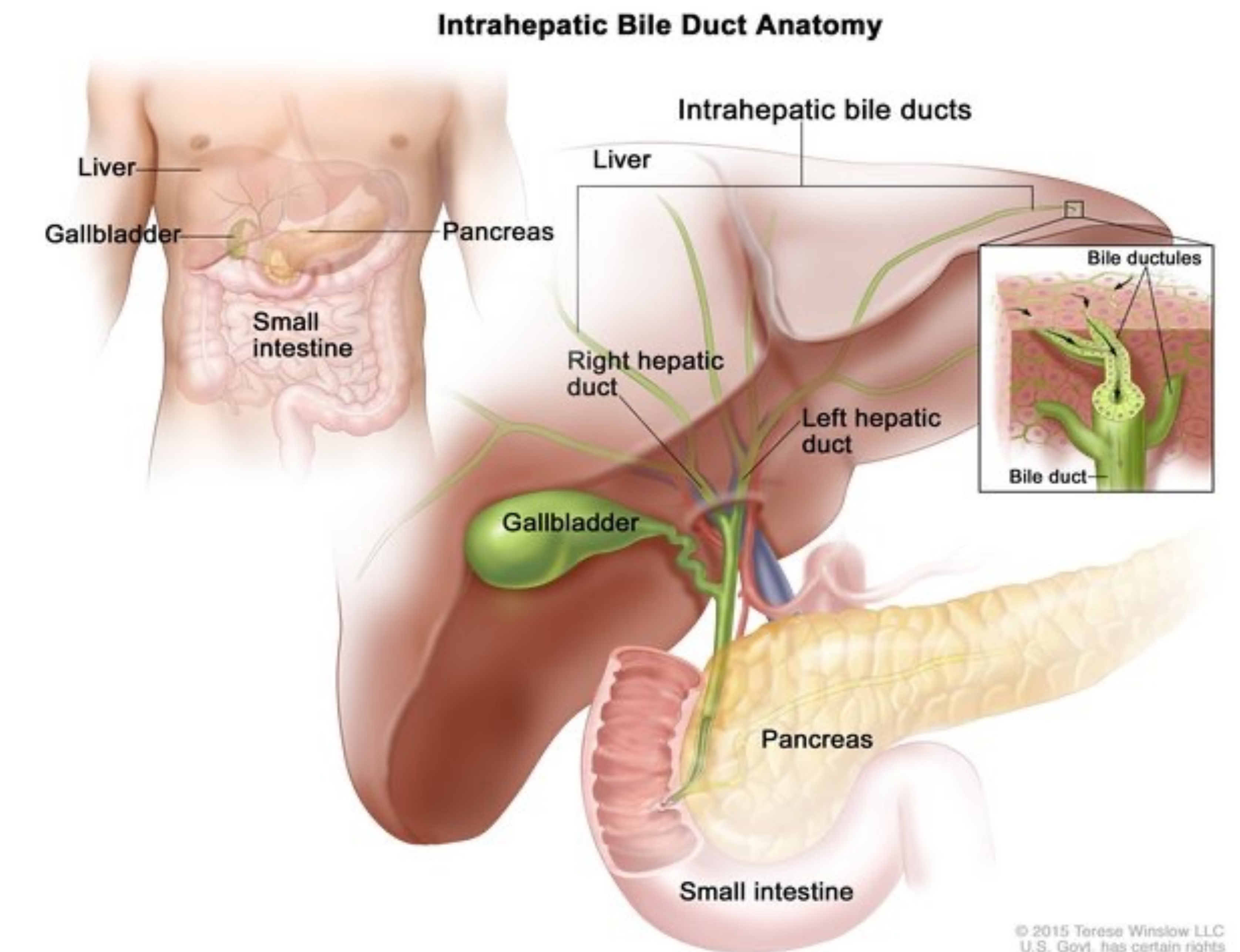


Approach to Labor Analgesia in a Coagulopathic Parturient with Presumed Vitamin K Deficiency from Cholestasis of Pregnancy

Alexander Meshel, MD, Daniel Katz, MD, Benjamin Hyers, MD
Icahn School of Medicine at Mount Sinai, New York, NY

Introduction

- Intrahepatic cholestasis of pregnancy (IHCP) is the most common pregnancy-specific liver disease that occurs in about 0.4-1% of North American pregnancies.
- It is exceedingly rare, however, for patients with IHCP to have a coagulopathy from presumed malabsorption of vitamin K.
- The usual clinical features of IHCP include pruritis without rash.
- Laboratory analysis is significant for elevated bile acids.
- There is an increased incidence of IHCP in patients with chronic liver disease.



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Case Description

- 26 year-old G1P0000 female at 34 weeks 1 day referred to L&D suite following elevated INR (3.7)
- **Medical History:** liver transplant at 5 years old for alpha-1-antitrypsin deficiency, thrombocytopenia (baseline 80,000), and cholestasis of pregnancy
- **Findings upon presentation:** Repeat INR 4.1
- **Consults:** Liver medicine team recommended IV vitamin K administration. Maternal Fetal Medicine team recommended delivery given her coagulation status, thrombocytopenia, and worsening transaminitis.
- **Labor Course:** Risks and benefits of an induction of labor without neuraxial anesthesia and a cesarean section under general anesthesia were explained. She opted for an induction of labor.
- 12 hours later, repeat INR 1.3. ROTEM thromboelastometry with normal coagulation. Consented for epidural labor anesthesia.
- 36 hours later, minimal cervical change, decelerations on fetal heart rate, type II tracing, cesarean delivery recommended
- Epidural loaded with 30cc 2% lidocaine with epinephrine in 5cc doses. Arterial line placed.
- Labor proceeded uneventfully without bleeding or complications
- **Postpartum Course:** INR remained in normal range. Platelets at baseline. Discharged on POD 4.

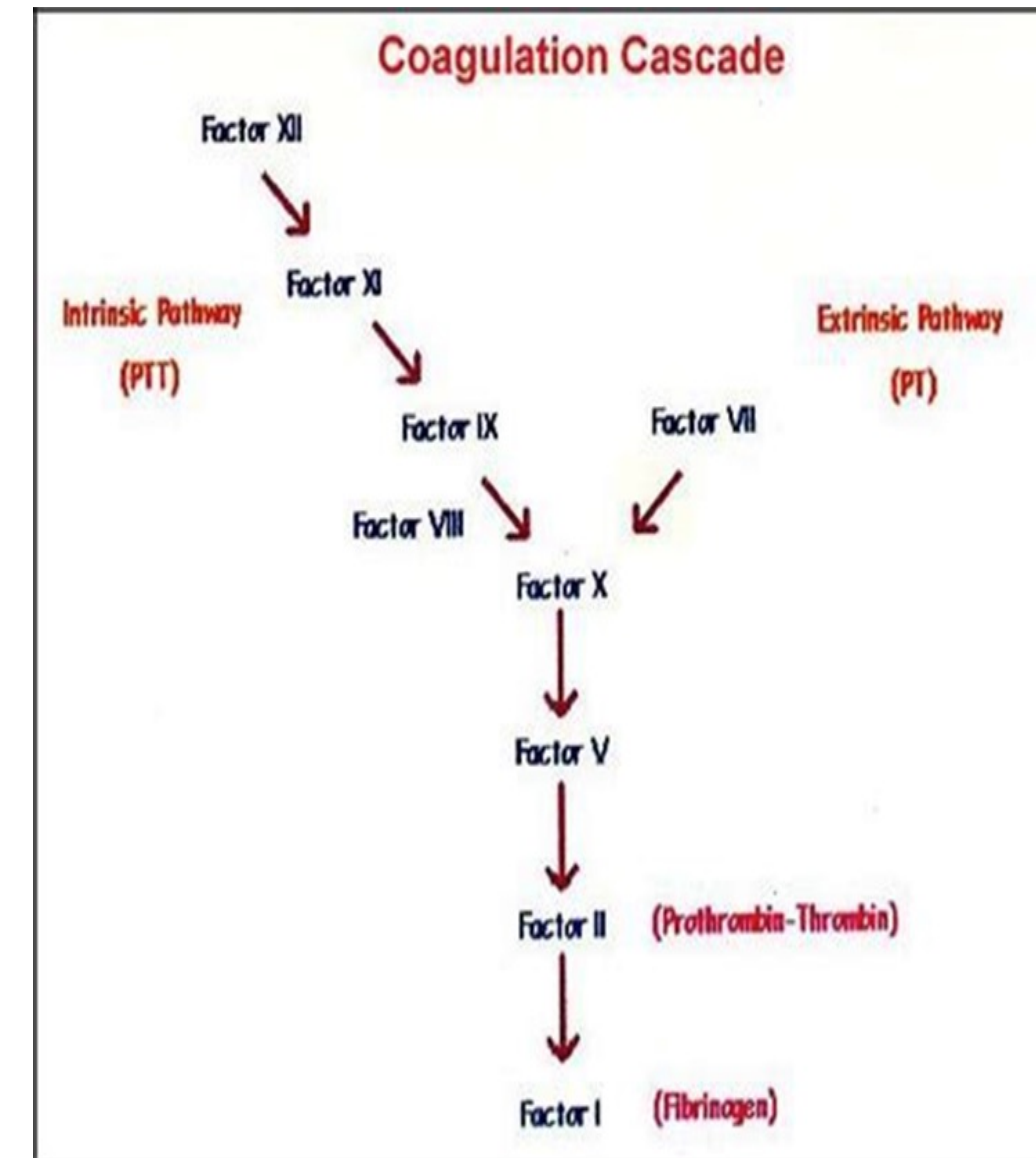


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Learning Points

- It is exceedingly rare for IHCP to lead to coagulopathy seen in this patient.
- Without the gallbladder effectively delivering bile to the colon, fat soluble vitamins, including vitamins A, D, E, and K are less likely absorbed.
- Vitamin K acts as a cofactor for gamma carboxylation of factors II, VII, IX, and X.
- A rare, but significant complication of neuraxial anesthesia, is the formation of an epidural hematoma. This complication is extremely uncommon when patients are adequately evaluated for a coagulopathy prior to neuraxial placement.
- Administration of vitamin K promptly allowed for the reversal of the coagulopathy and allowed her to be a candidate for neuraxial anesthesia.
- It is very important to include all relevant medical specialties and to approach patient care as a multidisciplinary team when caring for complicated obstetric patients.
- It is important to identify the etiology of coagulopathies in pregnant patients and to determine if it can be treated quickly so neuraxial anesthesia can be offered allowing for a safer labor and delivery.



<http://www.womenshealthsection.com/content/obsnc/obsnc015.php3>



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