

Neuraxial Anesthesia in a Postpartum Hemorrhage Patient with Cystic Fibrosis and Vitamin K Deficiency Coagulopathy

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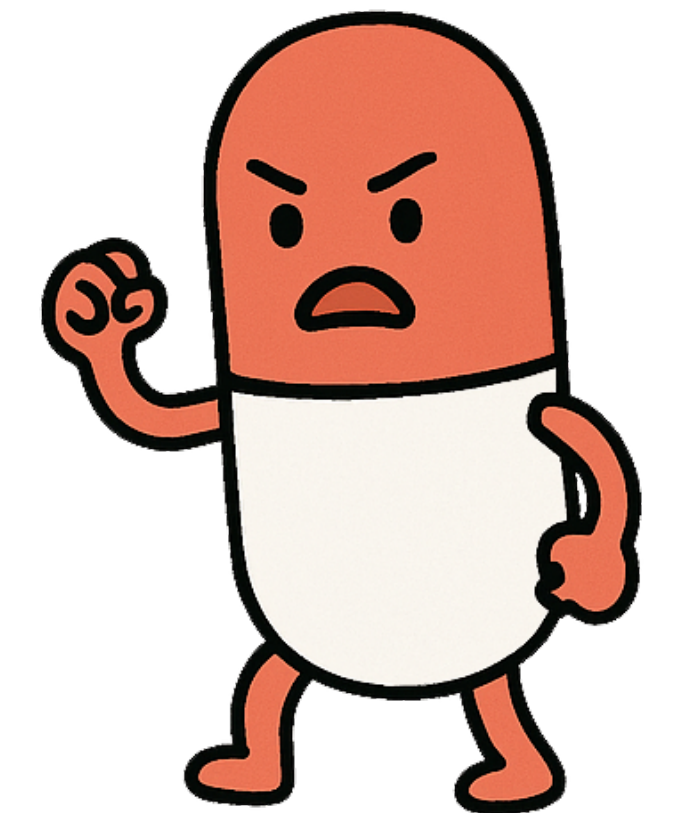
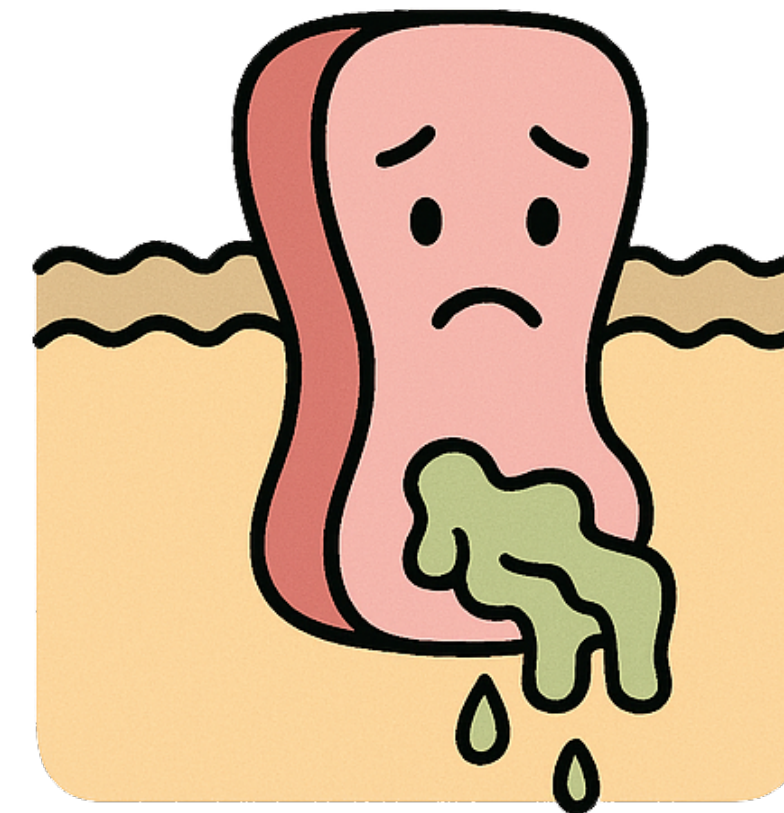
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- Cystic Fibrosis (CF)

- CF Transmembrane Conductance Regulator (CFTR) mutations
 - autosomal recessive (AR) genetic disorder
- ↓ membrane Cl⁻ transport → thick secretions →
 - Pulmonary Infections
 - Pancreatic Insufficiency
 - Infertility

- Vitamin K (VitK)

- Needed for clotting factor (II, VII, IX, X) activation
- Deficiency: ↓ creation (GI Dysbiosis) & ↓ absorption (CF)



	<i>Ante</i>	<i>Postop</i>		<i>POD #1</i>
Hgb	14.0	7.8	7.6	8.9
Plt	526	357	411	248
INR	1.1	8.2	9.3	1.4
PT	16.4	92.4	104.1	16.4
aPTT	28.3	41.7	44.2	28.5
Fibrinogen	803	469	442	434



1. 25yo G2P0 @ 37w2d in Labor

- PMH: CF, hypothyroidism, A1GDM
- ANC: CF exacerbations @ 34w & 36w, on piperacillin-tazobactam
- Delivery: precipitous NSVD w/o neuraxial c/b 3° tear → bleeding

2. Repair in OR

- Anesthesia: spinal (27g whitacre; fentanyl 15mcg, morphine 0.05mg, hyperbaric bupivacaine 0.75% 1.4mL)
- Transfusion: 2u pRBC

3. Coagulopathy Noted

- Transfusion: +1u pRBC, 2u FFP
- Dx: Vitamin K deficiency coagulopathy in s/o CF malabsorption & β-lactam abx
- Heme: c/s hematology, vitK 10mg IV
- Neuro: hourly checks

- Discussion

- US incidence of pregnancy in CF patients 2x from 2019 to 2020
- ↑ incidence → ↑ complications associated with CF + L&D
(i.e., epidural hematoma, PPH)
- ↑ vigilance before performing neuraxial anesthesia & delivery →
↓ complications & morbidity/mortality

- References

1. *Cochrane Database Syst Rev.* 2020;6(6).
2. *CF Foundation Patient Registry, 2023 Annual Data Report.* 2024;13.

of US Pregnancies in CF Patients by Year

