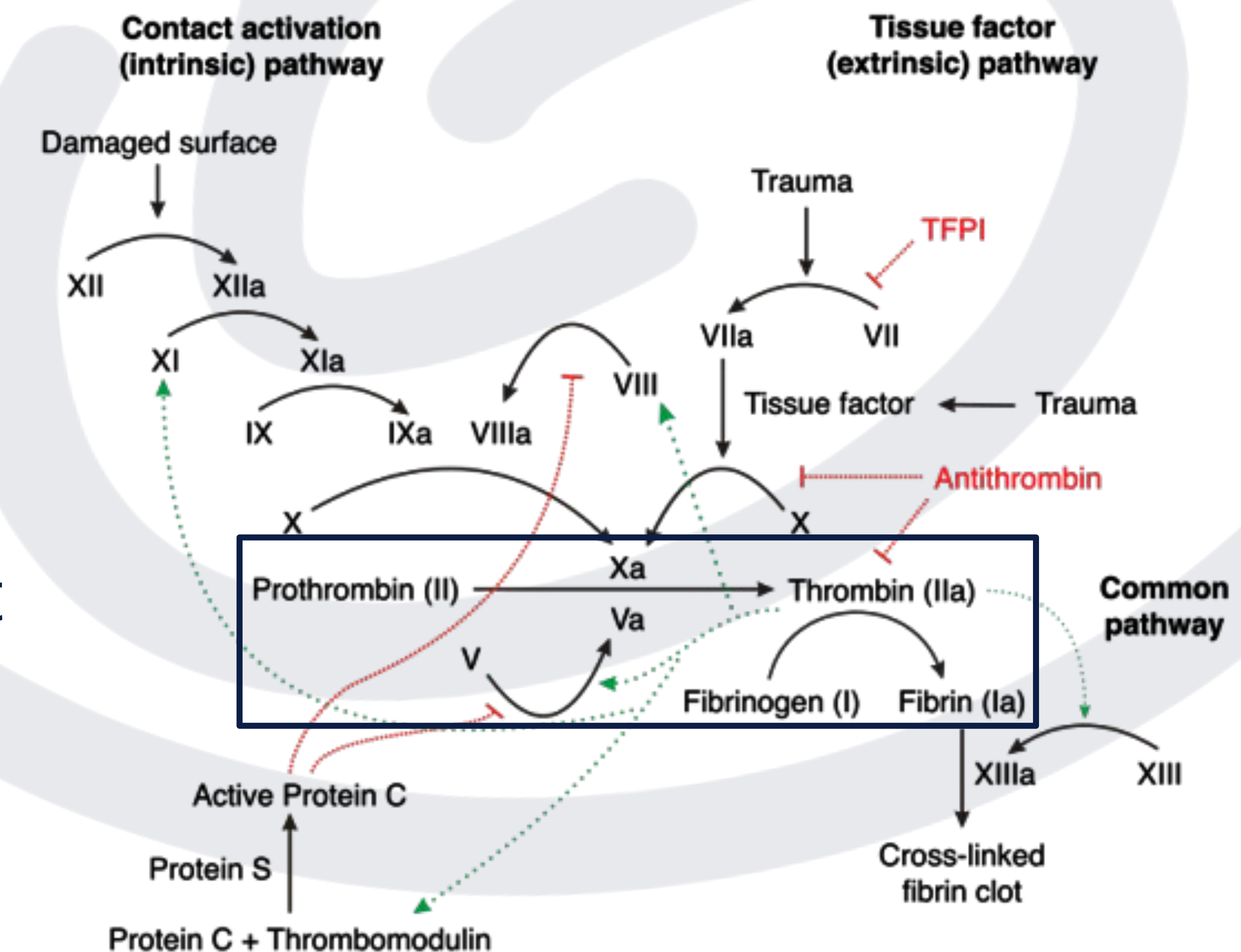


A Case Of Factor V Deficiency Complicated By Fresh Frozen Plasma Allergy

University of California, San Francisco Department of Anesthesiology & Perioperative Care
Emily Boyd MD, Kate Kronish MD, Jenny Woodbury MD, MBA

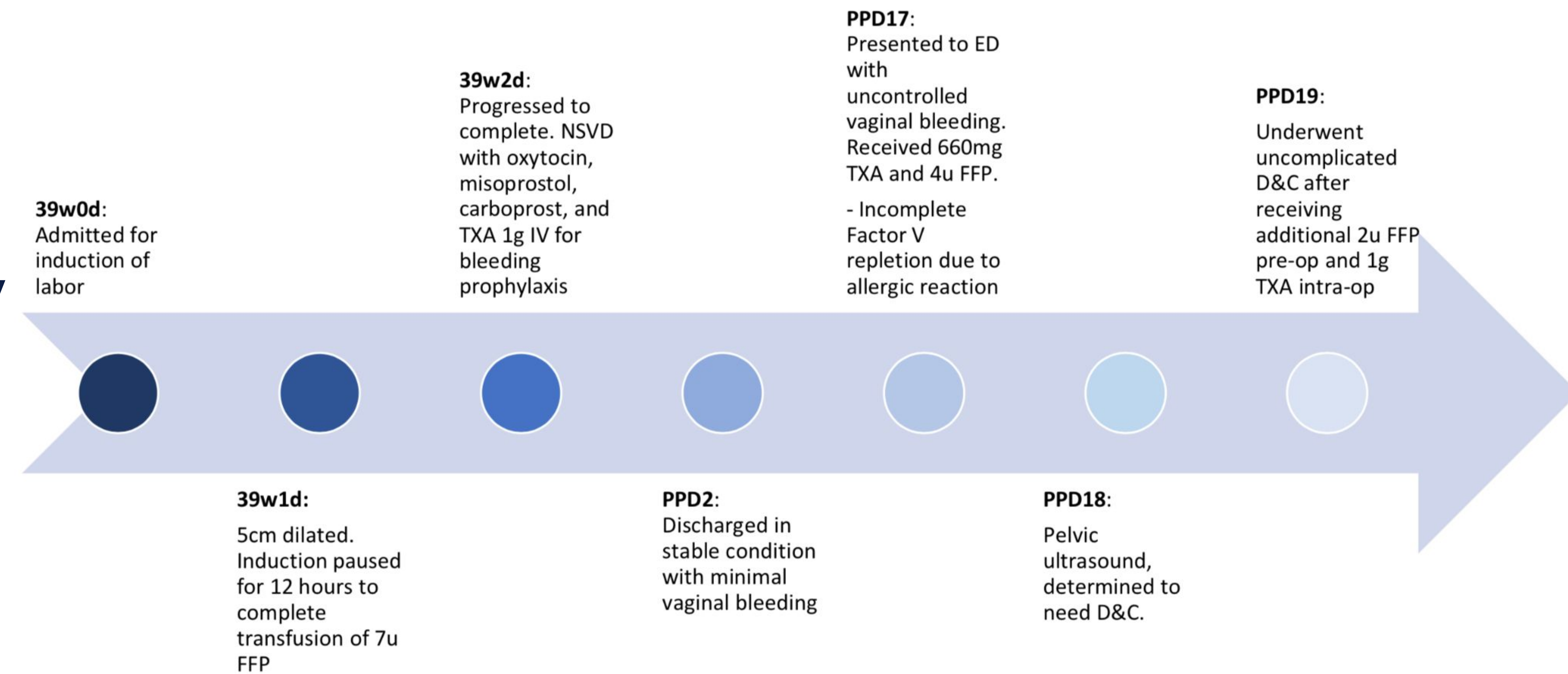
Introduction

- Factor V deficiency is a rare, inherited bleeding disorder
- Disrupts conversion of prothrombin to thrombin
- Severity is based off of Factor V activity levels
- Managing bleeding episodes involves clotting factor replacement
 - Only available through fresh frozen plasma (FFP) transfusions



Case Description

- 33-year-old G3P1011 with severe factor V deficiency with less than 4% activity of factor V
- Outpatient managed with weekly infusions of 3u FFP at slow-rate with diphenhydramine and acetaminophen due to hives
- Admitted at 39w0d for induction of labor with multidisciplinary plan
 - 7u FFP, oxytocin, misoprostol, carboprost, and tranexamic acid (TXA)
 - Uncomplicated vaginal delivery with quantitative blood loss (QBL) of 80mL
- Seventeen days later presented with bleeding, ultrasound showed suspected vascularized retained products of conception, and she was planned for urgent D&C
- Only able to receive 6u FFP and 660mg TXA pre-procedure
- Ultimately uncomplicated D&C with 1g TXA and QBL 75mL



Teaching Points

- FFP is the main treatment for bleeding in factor V deficiency, but can be difficult to have as lone treatment
- Contingency plans include TXA, platelets, prothrombin complex concentrate, and recombinant factor VIIa
 - Platelets may be particularly effective in factor V deficiency as they release factor V
- Multidisciplinary approach important to develop care plan

References:

Coagulation Cascade. Coagulation Cascade - Hematology - Medbullets Step 1. Accessed April 4, 2025. <https://step1.medbullets.com/hematology/111004/coagulation-cascade>.

Drzymalski DM, Elsayes AH, Ward KR, House M, Manica VS. Platelet transfusion as treatment for factor V deficiency in the parturient: a case report. *Transfusion*. 2019;59(7):2234-2237. doi:10.1111/trf.15322

Menegatti M, Peyvandi F. Treatment of rare factor deficiencies other than hemophilia. *Blood*. 2019;133(5):415-424. doi:10.1182/blood-2018-06-820738

Stoj KM, Pierro J. Factor V deficiency. StatPearls - NCBI Bookshelf. Published May 6, 2024. <https://www.ncbi.nlm.nih.gov/books/NBK580494/>