

# A Parturient with Factor VII Deficiency: A Case Report

Sana Rukh MD MPH<sup>1</sup>, Priyanka J Hadvani BS MS<sup>2</sup>, Shauna Bratton BS<sup>2</sup>, Truc-Anh T Nguyen MD<sup>1</sup>

Banner University Medical Center- Tucson<sup>1</sup>

University of Arizona College of Medicine<sup>2</sup>

## BACKGROUND

- Factor VII Deficiency is an autosomal recessive bleeding disorder
- Defect in F7 gene
- Incidence 1/300,000-500,000 worldwide

## PATIENT PRESENTATION

### HPI:

- 34yo G2P1 at with Factor VII deficiency and asthma 39w0d came in for scheduled C/S and Bilateral Tubal Ligation (BTL)
- C/S during her first pregnancy requiring 1u pRBC transfusion postoperatively and significant PPH requiring 20u PRBCs and uterine artery coilization
- Subsequently dx w/ Factor VII deficiency (factor VII level at 40%)

### SURGICAL HX:

- 1<sup>st</sup> C/S: severe PPH
- Wisdom teeth removal w/ mild prolonged bleeding. No interventions required

### FAMILY HX:

- Son with intermittent epistaxis likely 2/2 seasonal changes

### SOCIAL HX:

No tobacco, ETOH or illicit drug use

### MEDICATIONS:

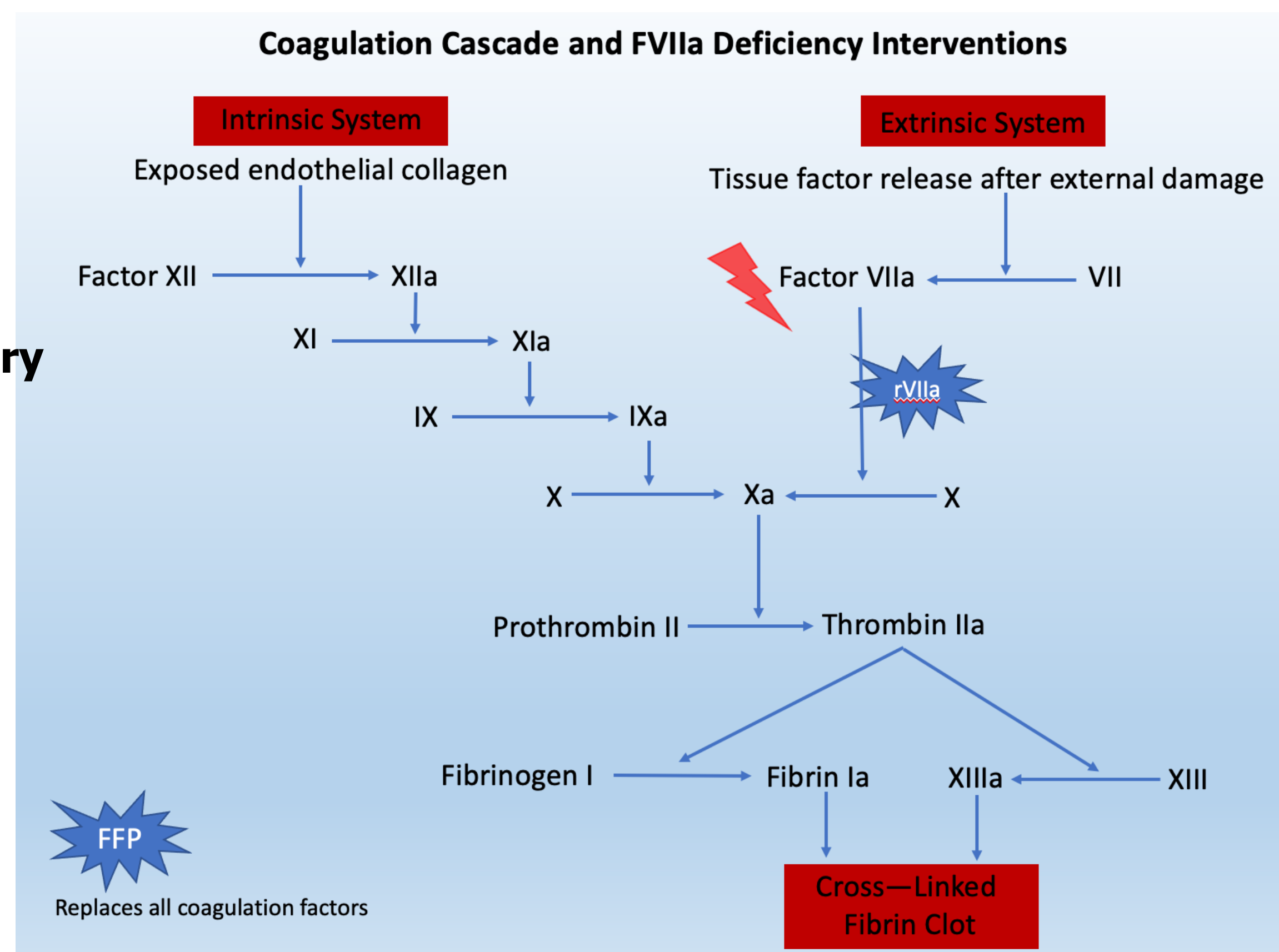
- Montelukast, albuterol, multivitamins

### PHYSICAL EXAM:

- Afebrile, hemodynamically stable
- No hematoma/petechiae/ecchymosis/epistaxis

### LABORATORY:

- Day of C/S Labs  
CBC: WBC 8.2; HGB 9.7; MCV 86; PLTS 245  
Factor VIII 157%  
Factor VII Activity 97% (51-186)  
BMP: Creatinine (0.48) Albumin (3.4)  
Fe panel: WNL  
Coag Studies: normal PTT elevated PT (14.8)



## CLINICAL COURSE

- Hematology/Oncology consulted recommend 2u FFP prior to C/S. In case of PPH, she would get recombinant factor VIIa (rFVIIa) q2h until hemostasis
- Uneventful GETA for repeat C/S and BTL: EBL (800) IVF ( 1000ml) UOP (300). Received 2u FFP prior to C/S
- Postpartum, Course:
  - Hgb: 9.7 ->8.5 > 8.4. No s/s of anemia Low concern for bleeding given benign abdominal exam, normal lochia, and normal vitals
  - Required no further transfusions
- On discharge, the patient had Hgb 8.4, factor VII 46%, PT 14.6. Patient had stable levels of PT for 2 weeks following discharge

## DISCUSSION

### SIGN AND SXS

- Asymptomatic to mild/major bleeding
- Excessive bleeding/bruising after minor trauma
- Immediate, excessive bleeding w/ invasive procedures

### DIAGNOSIS

- Lab Results
  - CBC: Plt count normal
  - Clotting studies: Normal PTT, prolonged PT
  - Factor VII levels low (May /may not correlate w/ F7 activity)
  - Other Dx: Physical exam: bleeding, clots

### TREATMENT

- Avoid invasive procedures/punctures
- Medications
  - Childbearing age females:
    - Metorrhagia: OCP (suppresses menses), anti-fibrinolytcs
    - FFP, recombinant F7, and PCC
    - Childbirth: PPx w/ FFP, recombinant F7 + Antifibrinolytic agents

## CONCLUSION

- Our case highlights the importance of involving anesthesiologists early in a Factor VII Deficiency patient's care in order to maximize safety (i.e decision to undergo GETA over neuraxial anesthesia due to the risk of hematomas and permanent neurological damage)
- We discussed the multidisciplinary approach required in the pre-operative, peri-operative, and post-operative care of patients with GT

