



COAGULATION
COAG 1602 WB Analysis Worksheet

CLINICAL INFORMATION

A 45-year-old man is seen by outpatient Hematology for a bleeding tendency since childhood. He describes bruising with minor trauma and frequent epistaxis since he was 4 years of age. Epistaxis has often been severe, requiring ER visits, nasal packing and cautery. He often has gum bleeding with brushing and flossing. He has had no major surgery but wisdom tooth extraction and other dental procedures have led to significant bleeding sometimes continuing for 2 to 3 days. He denies any hemarthrosis (joint bleeds) or muscle hematomas. Family history consists of five brothers. One brother died of severe epistaxis at age 4 and another brother of an intracranial bleed at age 48 following minor blunt trauma.

1. Based on this history, which are the likely clinical diagnoses in this man? More than one option may be selected.
- a. Von Willebrand disease
- b. Severe Hemophilia A (FVIII deficiency)
- c. Platelet function disorder
- d. Disseminated intravascular coagulation

Investigation of this bleeding disorder reveals the following:

Laboratory findings:

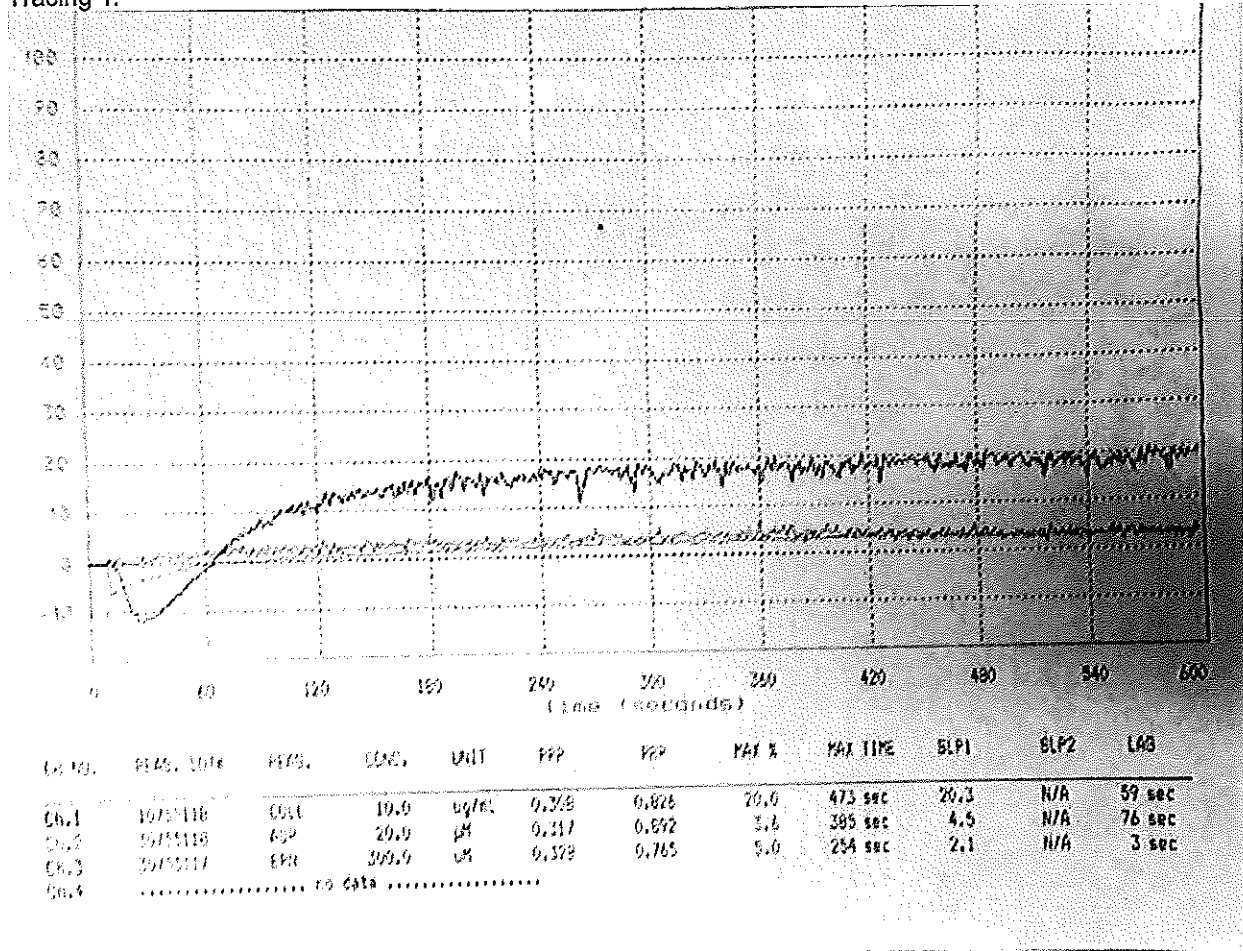
Test	Result	Normal Range
CBC		
Hemoglobin (g/L)	105	130 - 180
Hematocrit (L/L)	0.325	0.390 - 0.540
MCV (fL)	72.0	78 - 96
WBC (x 10 ⁹ /L)	4.7	4.0 - 11.0
Platelet count (x10 ⁹ /L)	201	150 - 400
Ferritin (µg/L)	8	20 - 400
INR	1.03	0.90 - 1.10
APTT (sec)	29.3	24.0 - 34.0
Von Willebrand Screen		
vWF Antigen (IU/mL)	1.68	> 0.50
Factor VIII Assay (IU/mL)	1.91	> 0.50
vWF Ristocetin (IU/mL)	>2.00	> 0.50
Fibrinogen (g/L)	3.5	1.5 - 4.0
Platelet aggregation		
ADP20 (%)	4	73 - 103
Collagen (%)	20	86 - 103
Epinephrine (%)	5	69 - 113
Ristocetin 1.5 (%)	97	78 - 103
Ristocetin 0.5 (%)	4	0 - 10
Arachidonic Acid (%)	16	>50



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Tracing 1:



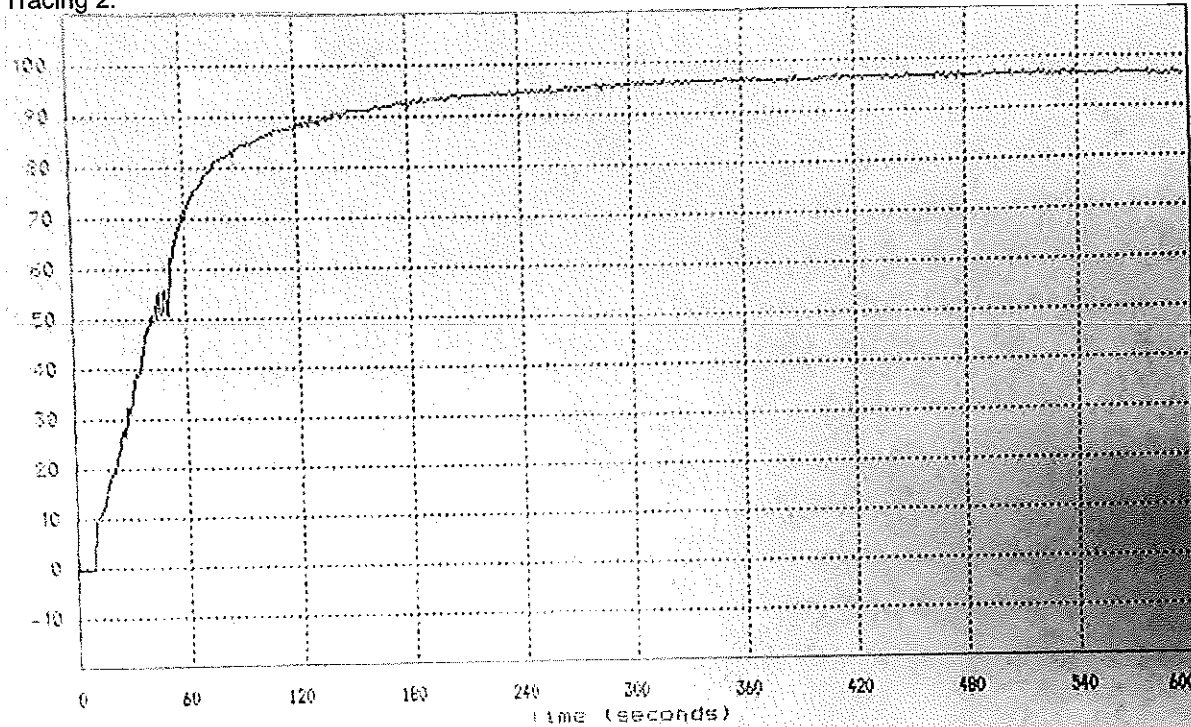
Comments



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Tracing 2:

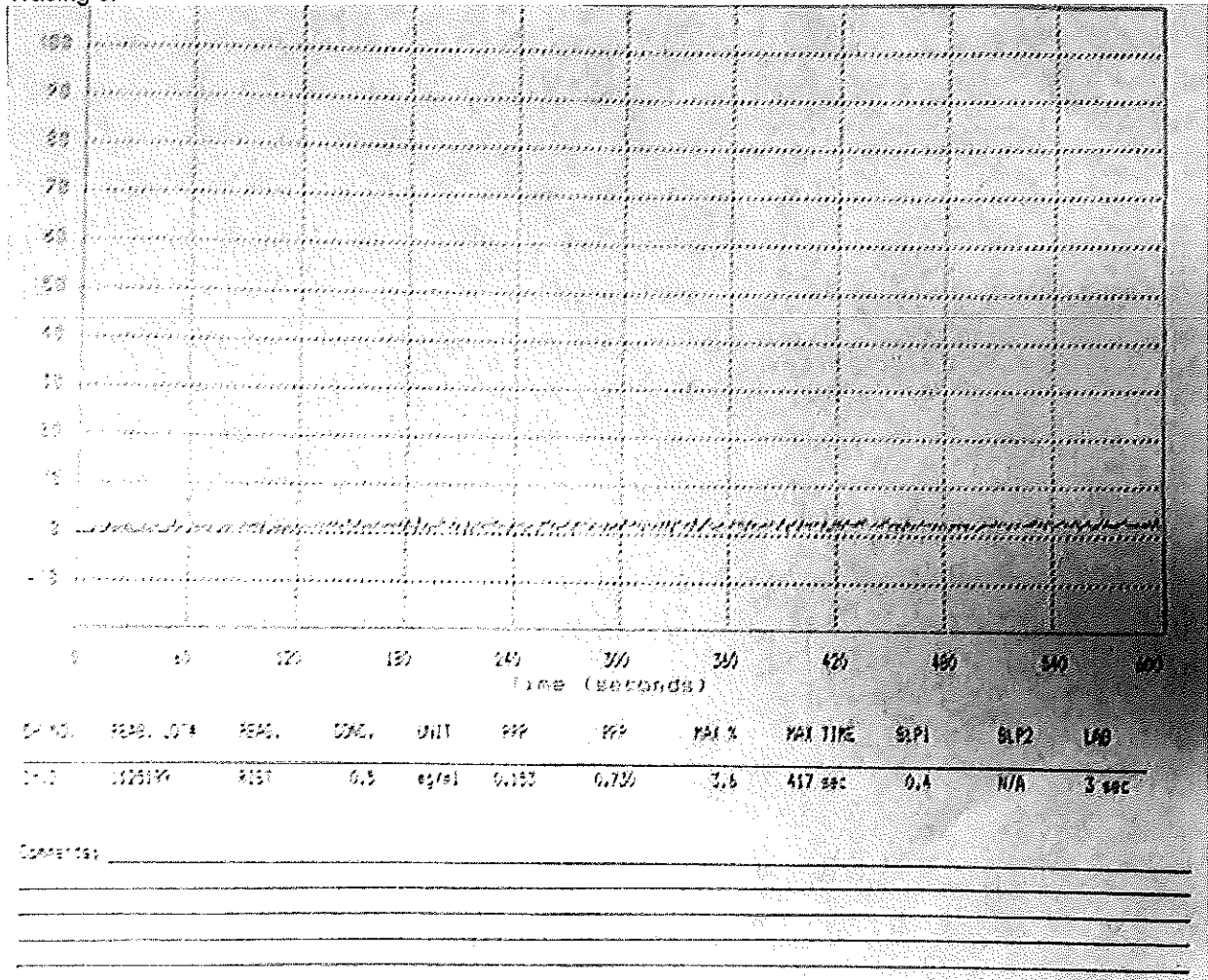


CH NO.	REAG. LOT#	REAG.	CONC.	UNIT	PPP	PPP	MAX %	MAX TIME	SLP1	SLP2	LAB
Ch.1	11251999	RISI	1.5		0.265	0.661	96.8	370 sec	60.8	N/A	3 sec

Comments: _____



Tracing 3:



2. What is his diagnosis?

- a. Bernard Soulier syndrome
- b. Glanzmann's thrombasthenia
- c. Platelet-type Von Willebrand's disease
- d. Von Willebrand's disease