Low Platelets, High Stakes

Pregnancy-Associated TTP Presenting as Severe Thrombocytopenia With Fetal Compromise

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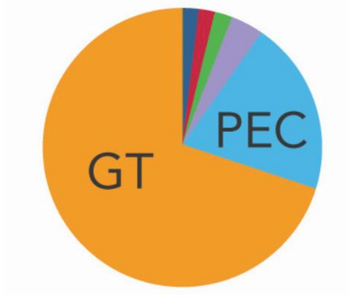
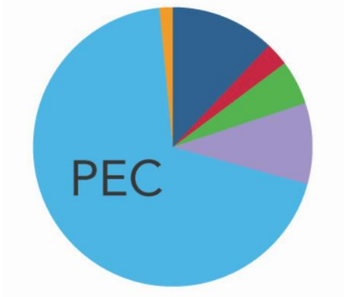
Background

- Thrombocytopenia in pregnancy develops in 5-10% of healthy women by the 3rd trimester
- Most common etiologies in 3rd trimester vary by platelet count:

Platelets > 100 x 10^9/L



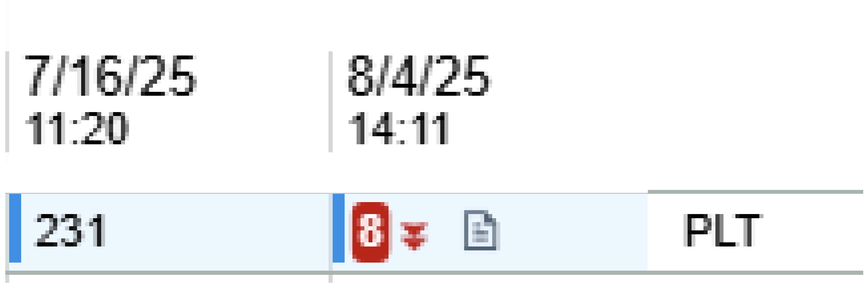
Platelets < 50 x 10^9/L



ITP HT TTP/HUS Other PEC GT

Case Presentation

- 43yo otherwise healthy G1P0 at 30w2d
- Presented to triage with decreased fetal movement, 1-2 days of petechiae, and “highlighter orange” urine
- BPP 2 out of 8 for +amniotic fluid



Fogerty AE, Kuter DJ. How I treat thrombocytopenia in pregnancy. *Blood*. 2024;143(9):747-756. Doi:10.1182/blood.2023020726

Case Progression

15:06
Plt 8; hematology consulted, decision to treat for presumptive ITP while additional workup expedited

15:58
Betamethasone and magnesium completed, 1u Plt administered, TXA started

16:25
GA induced, liveborn male w/APGARS 3, 8, & 9

16:56
IVIG administered

17:09
Significant oozing noted in field and with attempted OGT placement, additional 1u Plt administered

17:20
Upon extubation, hematology reported schistocytes on peripheral smear, c/f TTP

17:29
Haptoglobin <10
LDH 807
Retic Index 1.47

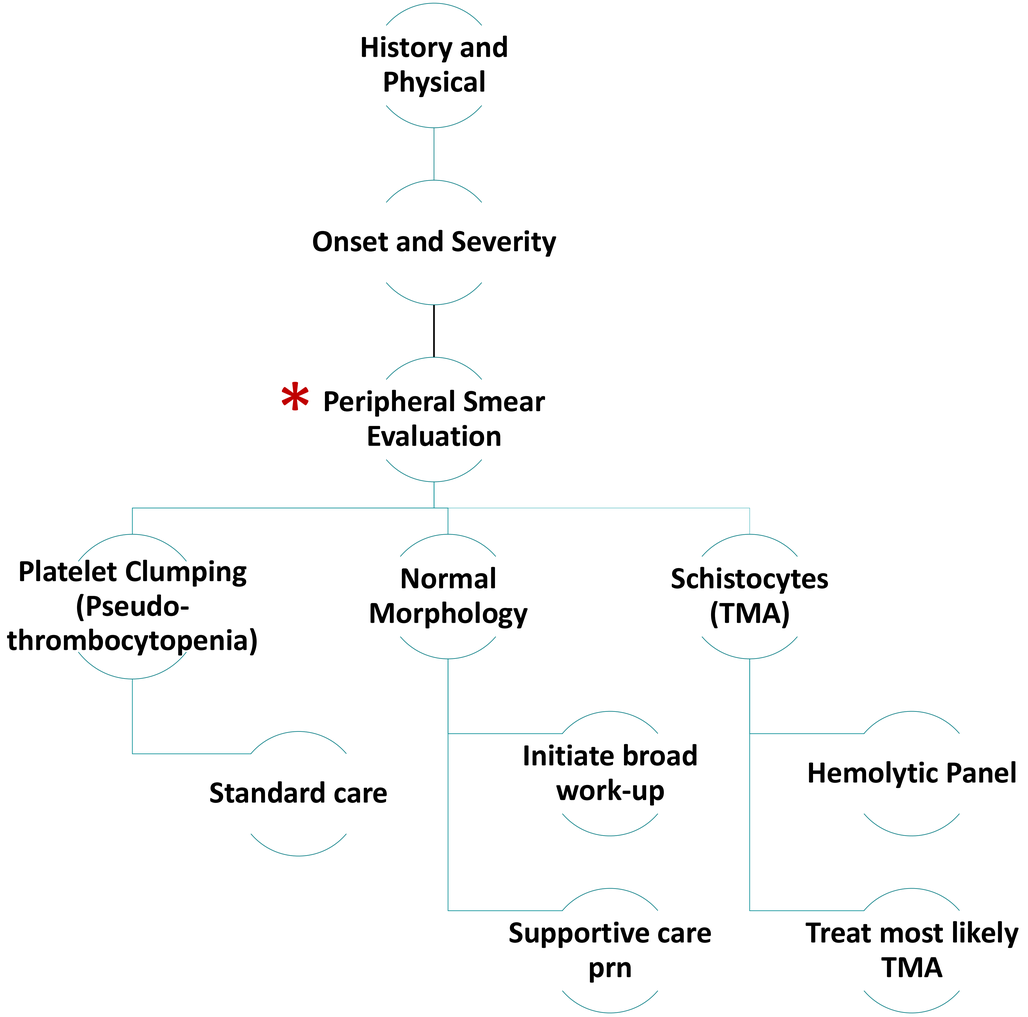
19:21
Plasmic Score 7-> 72% risk of severe ADAMTS13 deficiency, transferred to SICU for plasma exchange therapy

Bendapudi PK, Hurwitz S, Fry A, et al. Derivation and external validation of the PLASMIC score for rapid assessment of adults with thrombotic microangiopathies: a cohort study. *Lancet Haematol*. 2017;4(4):e157-e164. doi:10.1016/S2352-3026(17)30026-1

Key Takeaways

- Thrombocytopenia features often overlap, but management can vary significantly
- A clear diagnostic framework enables rapid identification and target management

Feature	ITP	TTP
Platelets	Variable (can be <10K)	<30K (often severe)
MAHA/Schistocytes	Absent	+++
LDH/Hemolysis	Normal	Markedly ↑
Liver Enzymes	Normal	Normal
Coagulation	Normal	Normal
Renal Injury	Absent	Mild or Absent
ADAMTS-13	Normal	<10%
Treatment	IVIG/Steroids, plts/TXA prn	Plasma exchange, AVOID plts/TXA



Scully M, Thomas M, Underwood M, et al. Thrombotic thrombocytopenic purpura and pregnancy: presentation, management, and subsequent pregnancy outcomes. *Blood*. 2014;124(2):211-219. doi:10.1182/blood-2014-02-553131
Fogerty AE, Kuter DJ. How I treat thrombocytopenia in pregnancy. *Blood*. 2024;143(9):747-756. Doi:10.1182/blood.2023020726