Post-Transfusion Purpura: A Rare Cause of Severe Thrombocytopenia.

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Post-Transfusion Purpura: A Rare Cause of Severe Thrombocytopenia

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INTRODUCTION

- Thrombocytopenia in hospitalized patients is a frequent occurrence with various etiologies. However, severe thrombocytopenia with a platelet count <15,000 is uncommon
- Post-transfusion purpura (PTP) is a rare but potentially fatal cause of thrombocytopenia. Due to the rarity of PTP, it is often initially misdiagnosed, causing a delay in treatment.

METHODS

- A 59-year-old female with a history of Sjogren's syndrome and rheumatoid arthritis presented with extensive petechia.
- Labwork revealed a platelet count of 10, decreased from 211 four days prior to admission.
- The patient was started on argatroban for suspected HIT in the setting of recent heparin use.

RESULTS

- After discovery of severe thrombocytopenia, the patient was started on argatroban for suspected heparin induced thrombocytopenia (HIT) in the setting of recent heparin use.
- A heparin-associated platelet antibody (HAPA) was negative, ruling out HIT. Argatroban was discontinued and a platelet transfusion was initiated.
- She developed 3 severe transfusion reactions that resolved with cessation of the transfusion.
- Ertapenem was discontinued to rule out drug-induced thrombocytopenia and an IgA level was within normal limits, excluding an immunoglobulin A (IgA) deficiency as the cause of repeated transfusion reactions
- A peripheral smear showed decreased platelets but no evidence of schistocytes or spherocytes. An abdominal ultrasound showed no splenomegaly.
- Human platelet angigen-1a (HPA-1a) was positive and the diagnosis of PTP was made.
- The patient received intravenous immunoglobulin (IVIg) and prednisone with rapid improvement in platelet count.

CONCLUSIONS

- PTP occurs primarily in women who were immunized by a prior pregnancy or transfusion.
- In this case, the patient had received a transfusion during a prior hospitalization 7 days prior to the development of PTP
- A subsequent transfusion causes an anamnestic response and thrombocytopenia due to alloimunization to human platelet specific antigens.
- It occurs approximately 5-12 days after a prior transfusion with an incidence of 1 in 50,000 – 100,000 transfusions.
- The antibody implicated in most cases is anti-HPA1a.
- Treatment is IVIG with or without steroids and potentially plasmapheresis.
- As post-transfusion purpura is easily misdiagnosed, it is crucially important to screen for platelet specific antibodies and in severe cases start treatment with IVIg before laboratory confirmation has been received.

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