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

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Post-Transfusion Purpura: A Rare Cause of Severe Thrombocytopenia

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 antigen-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 alloimmunization 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.

References:


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