



An allergic transfusion reaction with angioedema

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A 57-year-old group O woman with a history of acute myeloid leukemia received her eighth apheresis platelet (PLT) transfusion (group A) 15 days after a group A allogeneic hematopoietic stem cell transplant. The unit was 3 days old, 300 mL, and transfused over 60 minutes. Angioedema of the fingers, lips, and tongue developed. Vital signs before transfusion were temperature 36.7°C, blood pressure 146/80, and pulse 72 and after transfusion were temperature 36.3°C, blood pressure 120/68, and pulse 89. She had no prior allergic transfusion reactions, despite extensive transfusions with her initial induction chemotherapy. She had a history of hay fever and a nonpruritic rash with prior sulfa drug exposure; she had no food allergies.

The images of angioedema were taken 45 minutes into the reaction and after administration of 75 mg IV diphenhydramine, 20 mg IV famotidine, 100 mg IV hydrocortisone, and 0.25 mg IV epinephrine. The patient experienced tongue burning and mouth, throat, and cutaneous itching (see figure—angioedema of the fingers, lips, and tongue [left]; resolution of angioedema 2.5 hr after the reaction [right]). There was no stridor, dyspnea, bronchospasm, hypoxia, vomiting, or hypotension associated with this reaction. Plasma total tryptase, a marker of mast cell activation, was 7.6 ng/mL before transfusion and 21.8 ng/mL 1.5 hours after the reaction (normal, <11.4 ng/mL). PLT count was 2×10^9 /L before transfusion and 3×10^9 /L after transfusion, although the patient was broadly HLA sensitized and had low increments to other PLT transfusions. Subsequent PLT, but not RBC, transfusions were washed. IgA testing was not performed.

Because this reaction was restricted to mucocutaneous manifestations, it does not meet criteria for a designation of anaphylaxis. Despite the medical urgency of this case, it is categorized as “nonsevere” according to ISBT criteria.¹ Reports of transfusion reactions often do not convey the morbidity that patients experience.

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CONFLICT OF INTEREST

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1. Working Party on Haemovigilance. Proposed standard definitions for surveillance of non infectious adverse transfusion reactions. International Society of Blood Transfusion. 2013. [cited 2014 Jan 8]. Available from: <http://www.isbtweb.org/working-parties/haemovigilance/definitions/> ■