COMMUNICATIONS

A fatal case of tolmetin-induced immune hemolysis, disseminated intravascular coagulation, and acute renal failure

To the Editor:

A 56-year-old black female with a history of hypertension and arthritis of the knee was admitted with gastrointestinal bleeding, possible disseminated intravascular coagulation, and "black urine." The patient had no history of blood transfusions. Prior to admission, the patient had been medicated with Toletin® (tolmetin sodium, 400 mg per day) for 2 weeks, and indocin (50 mg per day) for the previous 6 weeks. The medications were prescribed for her arthritis. Laboratory results were as follows: hematocrit was 25 percent, reticulocytes 5.2 percent, prothrombin time and partial thromboplastin time >90 seconds, fibrin split products >40 mcg/mL, fibrinogen <50 mg/dL, haptoglobin <5 mg/dL, lactate dehydrogenase 4,174 IU/L, total bilirubin 7.7 mg/dL, and orange-brown serum.

The antibody screen of the patient's serum was strongly positive in all phases, her red blood cells were autoagglutinated, and the direct antiglobulin test was strongly positive because of coating with IgG and C3d. The serum contained a warm reactive autoantibody reacting with c- and Rhnull cells in neat serum, but showing anti-E-like specificity when the serum was diluted. The titer of the autoantibody was 1:4 in the absence of drug and 1:1,024 in the presence of a 1 mg/mL solution of tolmetin. Autoadsorption of the serum with ZZAP-treated autologous cells (x4) removed antibody reactivity. Alloantibodies to common antigens were excluded. An eluate was nonreactive until the addition of the 1 mg/mL tolmetin solution.

Ten hours postadmission, the patient's hematocrit was 15 percent and she experienced cardiac arrest. When the patient stabilized, an exchange transfusion of eight units of red cells and fresh-frozen plasma was attempted to remove autoantibody. At the end of the exchange, the patient's plasma had changed color from dark brown to yellow-brown. However, the patient's condition continued to deteriorate and further exchange was not attempted. She expired 48 hours postadmission. Tolmetin-induced hemolysis has been described previously. 1-3 This is the second reported fatal case of drug-induced hemolytic anemia related to tolmetin. 4

References

Valerie Jackson, MT(ASCP)SBB, and Aaron M. Josephson, MD
American Red Cross Blood Services
Gulf Coast Region
Corner Broad and Dauphin Streets
Mobile, AL 36633

Jill Storry, MS, FIMLS
American Red Cross
Blood Services
National Reference Laboratory
for Blood Group Serology
Rockville, MD

Debra Futral, MT(ASCP), and Floydt T. Boudreau, MD
Mobile Infirmary Medical Center
Mobile, AL

Unusual occurrence with directed donors

To the Editor:

This reference laboratory recently encountered a series of serologic problems associated with a pregnant patient, her newborn son, and several directed donors.

The patient, who had no previous pregnancies but had been transfused with one unit of red cells three years ago, was experiencing bleeding during the 34th week of her current pregnancy. Red cells were collected from six directed donors at another collection facility within a period of 2-3 days. The patient's antibody