

ABID CASE #10

1. What is the identity of this antibody?

Anti-Lu^a

2. Is any further workup needed to prove it? Comment on the sensitivity of the gel and PEG techniques in this case.

Routinely we attempt to test the patient for the antigen corresponding to the hypothesized antibody. However, anti-Lu^a typing sera are not commercially available. Again, the gel technique may be more sensitive to direct agglutinins than other forms of antiglobulin test which include a washing step.

3. Is the patient at risk for an immediate hemolytic transfusion reaction? A delayed hemolytic transfusion reaction? Would this antibody cause hemolytic disease of the newborn?

Anti-Lu^a does not cause any of these hemolytic syndromes.

4. Four weeks earlier the patient's antibody screen was negative. Why wasn't the antibody detected at that time? Do you think the patient had not yet made it?

Antibodies against low frequency antigens are typically missed in the antibody screening test. They are often detected when one panel cell is reactive in a workup for some other antibody, or when a crossmatch is unexpectedly positive.

5. What is the biochemical nature of the antigen? To what family of structures does it belong?

Lutheran antigens are carried by are carried by a glycoprotein of the Ig superfamily which is a cell adhesion factor.