

ABO discrepancy #6 Case Study by Jim Perkins MD (©, 2009)

History: This patient is a 45 year old woman who had an allogeneic bone marrow transplant two years ago for recurrent Hodgkins' disease. She was admitted for fever. The patient was registered in the blood bank computer system as group A, Rh positive.

A type-and-screen was ordered.

ABO and Rh Typing

<A	<B	A1 cells	B cells	6% alb	<D	<D/AHG	CCC	Interp
0	0	0	4+		4+			?, pos

Antibody Screen

	Gel
OI	0
OII	0

Direct Antiglobulin Test

	Poly	IgG	<C3
AHG			
CCC			

The technologist incubated the reverse typing at 4°C for 15 minutes and obtained the following results.

A1 cells	B cells	Auto control
3+	4+	0

ABO Discrepancy #6

1. What is the forward ABO type? If that is correct, what anomaly must one explain?
2. What is the reverse ABO type? If that is correct, what anomaly must one explain?
3. Which of these two hypotheses did the technologist investigate? What information in the history and type-and-screen results prompted him or her to do so?
4. What was the bone marrow donor's blood type?
5. Why was the autocontrol done with the incubated forward typing? That is, what common abnormality needed to be ruled out? [Hint: there's one in a previous ABO discrepancy in this series.]

