ABID CASE #23

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Indian Immunohematology Initiative

History: This patient was a 65 year old Caucasian woman scheduled for repair of a prolapsed uterus. She had been transfused in the late 1970's at the time of caesarian section and had acquired hepatitis C from that transfusion.

ABO and Rh Typing

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

Antibody Screen

	Gel
SCI	2+
SCII	2+

Direct Antiglobulin Test (tube method)

	Poly	IgG	<C3
AHG	0		
CCC	2+		

Initial Panel

8RA176		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other Typings		
Cell	Rh	D	C	E	c	e	V	K	k	Kp^a	Kp^b	Js^a	Js^b	Fy^a	Fy^b	Jk^a	Jk^b	Xg^a	Le^a	Le^b	S	s	M	N	P1	Lu^a	Lu^b		Cell	Gel
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	0	+	0	0	+	+	+	+	+	+	0	+	C^w	1	2+
2	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	+	0	0	+	0	+	0	0	0	+		2	0
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	+	0	0	+	0	+	+	+	0	0	+	+		3	1+
4	Ror	+	0	0	+	+	+	0	+	0	+	0	+	0	0	+	+	+	0	0	0	+	0	+	+s	0	+		4	2+
5	r'r	0	+	0	+	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	+	+	0	+	0	0	+		5	0
6	r"r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	+	0	+		6	0
7	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	+	0	+		7	0
8	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	+	0	+	+	+	0	+	0	+	0	0	0	+		8	2+
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	0	+	0	0	+	0	+	+	+	+	0	+		9	2+
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	+s	0	+		10	0
11	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	+	0	+	+	0	0	+	+	+	+	0	+		11	0
Patient																													AC	

Antigen Phenotype

	Rh system				Kell		Duffy		Kidd		Lewis		MNSs				p				
	C	E	c	e	K	k	Fy^a	Fy^b	Jk^a	Jk^b	Le^a	Le^b	M	N	S	s	P1	I	H	A_1	V
Patient							0	3+													2+
Pos control							3+	3+													2+
Neg Control							0	0													2+

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1. What is the probable identity of this antibody(ies)? How did you reach that conclusion?

2. Is any further workup needed to prove it? If additional cells must be tested, select them from the following panel. Attempt to complete the workup with as few additional tests as possible.

		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other		
Cell	Rh	D	C	E	c	e	V	K	k	Kp^a	Kp^b	Js^a	Js^b	Fy^a	Fy^b	Jk^a	Jk^b	Xg^a	Le^a	Le^b	S	s	M	N	P1	Lu^a	Lu^b	Typings	Cell	Gel
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+	0	+	C^w, Co^b	1	
2	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	+	+	0	+	+	0	+	0	+	0	+	+	0	+		2	
3	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	+	0	+	+	0	+	+	+	+	+	0	0	+		3	
4	R1R1	+	+	0	0	+	0	0	+	0	+	+	+	0	+	+	0	+	+	0	0	+	+	+	+	0	+		4	
5	RzR1	+	+	+	0	+	0	0	+	0	+	0	+	+	0	+	+	0	0	+	0	0	+	+	+	0	+		5	
6	RzR2	+	w	+	+	0	0	0	+	0	+	0	+	+	0	0	+	0	+	0	0	+	+	+	+	0	+		6	
7	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	0	+	0	0	+	0	+	+	0	+	0	+		7	
8	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	0	+	+	0	+	Co^b, Yt^b	8	
9	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	0	+	+	0	+	+	0	+	+	+	0	+		9	
10	R1r	+	+	0	+	+	0	0	+	+	0	0	+	+	+	+	+	+	0	+	+	+	+	+	0	0	+	Yt^b	10	
11	r'r	0	+	0	+	+	0	0	+	0	+	0	+	+	0	+	+	0	0	+	0	+	+	0	+	0	+		11	
12	r"r	0	0	+	+	+	0	0	+	0	+	0	+	+	0	0	+	+	+	0	+	+	+	+	0	0	+		12	
13	rr	0	0	0	+	+	0	+	+	0	+	0	+	+	+	+	0	+	0	+	+	+	+	0	+	+	+		13	
14	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+	0	+	+	0	+	+	+	Yt^b	14	
15	rr	0	0	0	+	+	+	0	+	0	+	0	+	0	0	+	+	0	0	+	+	+	+	0	+	0	+		15	
16	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	+	0	+	0	+	+	0	+	0	0	0	+	Yt^b	16	
17	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	+	0	+	Co^b, Yt^b	17	
18	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	+		18	
19	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	+	0	+	0	+		19	
20	Ror	+	0	0	+	+	+	0	+	0	+	+	+	0	0	+	+	+	0	0	0	+	+	+	+	0	+		20	
Patient																													AC	

3. Does this antibody(ies) cause hemolytic transfusion reactions? Hemolytic disease of the fetus and newborn?

4. How would we select compatible blood in this case? Would selection of any particular IAT technique be useful in deciding how to select compatible RBCs?

5. What cells in the above panel likely come from donors of African descent?