

**ABID CASE #21** Case Study by Jim Perkins MD (©, 2009)

**History:** This patient was a 77 year old man on chronic renal dialysis who takes aspirin and was admitted for hematochezia. He had been transfused multiple times.

**ABO and Rh Typing**

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

**Antibody Screen**

	Gel	HPC* ads.
OI	0	0
OII	1+	w+

**Direct Antiglobulin Test**

	Poly	IgG	<C3
AHG	0		
CCC	2+		

\*HPC = Human platelet concentrate

**Initial Panel**

8RA188		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other			HPC* ads.	
Cell	Rh	D	C	E	c	e	V	K	k	Kp <sup>a</sup>	Kp <sup>b</sup>	Js <sup>a</sup>	Js <sup>b</sup>	Fy <sup>a</sup>	Fy <sup>b</sup>	JK <sup>a</sup>	JK <sup>b</sup>	Xg <sup>a</sup>	Le <sup>a</sup>	Le <sup>b</sup>	S	s	M	N	P1	Lu <sup>a</sup>	Lu <sup>b</sup>	Typings	Cell	Gel	Gel	
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	0	+	+	+	0	+	C <sup>w</sup>	1	0	
2	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	0	+	0	0	0	0	+	0	+	+	+	+s	0	+		2	0	
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	0	+	+	0	+	0	+	0	+	+	0	+		3	0		
4	Ror	+	0	0	+	+	0	0	+	0	+	0	+	0	0	+	0	+	0	0	0	+	+	+	+s	+	+		4	vw+	0	
5	r'r	0	+	0	+	+	0	+	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	+s	+	+		5	vw+	0	
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	0	+	+	0	0	+	0	+	0	0	+		6	0		
7	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	+	+	0	+	0	+	+	+	+	+s	0	+		7	0		
8	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	+	0	+	0	+	0	+	+	0	+	+s	0	+		8	0		
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	0	+	0	+	0	+	0	+s	0	+		9	0		
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	0	+	0	0	0	+		10	0		
11	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	0	+	0	+	+	+	0	+	C <sup>w</sup>	11	vw+	0
Patient																													AC	0		

\*Human Platelet Concentrate

## **ABID CASE #21**

1. What is the probable identity of this antibody? (Hint: look up the use of HPC.)
2. Is any further workup needed to prove it? Are there any other methods that could have been used other than HPC neutralization of the antiserum?
3. What is the probable source of the immunizing stimulus in this case?
4. Does this antibody cause hemolytic transfusion reactions? Hemolytic disease of the newborn?
5. Are there any other transfusion-related problems for which this patient might be at risk?
6. How would we select compatible blood for this patient?
7. What is the biochemical nature of the antigen?