

AIHA CASE #6 Case Study by Jim Perkins MD (©, 2009)

History: The patient was a 76 year old woman with a history of emphysema and lung cancer, S/P lobectomy, came to the emergency room complaining of dyspnea and right calf swelling for 3 weeks. Physical examination was remarkable for pitting edema, warmth and redness of the right calf. Deep venous thrombosis was demonstrated by doppler, and computerized tomography of the chest demonstrated pulmonary embolism. The patient was admitted and placed on heparin, but developed bright red blood in her stools. Colonoscopy disclosed a rectal polyp which was thought to be the source of the bleeding, as well as a 3 cm carcinoma in the cecum. She was scheduled for surgery, and a type-and-screen was ordered.

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

Direct Antiglobulin Test

	Gel	Saline/tube			Poly	IgG	<C3
		I.S.	RT	4°C			
OI	2+	0	0	2+	AHG	0	
OII	3+	0	0	2+	CCC	2+	
AUTO		0	0	2+			
Cord		0	0	2+			

Initial Panel; raw plasma

8RA178		Rh system						Kell						Duffy		Kidd		Xg	Lewis			MNSs				P	Lutheran		Other Typings	Cell	Gel		
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	PI	Lu ^a	Lu ^b						
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	+	+	+	0	+	+	+	+	0	+	0	+	+	C ^w	1	3+		
2	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	+	+	+	+	0	0	0	+	+	+	+	0	+	+		2	2+		
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+		3	w+			
4	Ror	+	0	0	+	+	+	0	+	0	+	0	+	0	0	+	+	+	0	0	+	+	+	+	+	0	+		4	1+			
5	r'r	0	+	0	+	+	0	0	+	0	+	0	+	0	+	+	0	+	0	+	+	+	+	+	+	0	+		5	2+			
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	+	+	+	+	+	0	+	+	0	+	+	0	0	+		6	0			
7	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	+	+	+	0	+	+	+	+	+	+	0	+		7	1+			
8	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	0	+	+	0	+	0	+		8	w+			
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+		9	0				
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	0	+	0	0	+		10	1+			
11	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	+	+	0	0	+	0	+	+	0	+		11	w+			
Patient																												AC					

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- 1.** What antibody(ies) are likely present? Is this allo- or auto-antibody? Is it proven?
- 2.** Discuss the variation in strength of the antibody(ies) in various test systems.
- 3.** How would you select compatible blood for this patient?