

ABO discrepancy #2 Case Study by Jim Perkins MD (©, 2009)

History: This patient was a 79 year old man with a chest x-ray and sputum cytology suggestive of lung cancer admitted for cervical mediastinoscopy and video bronchoscopy.

ABO and Rh Typing

< A	< B	A1 cells	B cells	6% alb	< D	< D/AHG	CCC	Interp
4+	4+	2+	0	0	4+			?, pos

Antibody Screen

	Gel
OI	0
OII	0

Direct Antiglobulin Test

	Poly	IgG	< C3
AHG	0		
CCC	2+		

Additional testing

Cell type	Lot #	IS	30°, 37'	AHG	CC
A ₁	25036	3+	0	0	2+
A ₁	0605348	3+	0	0	2+
A ₁	3430618 (donor)	3+	0	0	2+
A ₂	0410245	0	0	0	2+
A ₂	0612376	0	0	0	2+
A ₂	0508296	0	0	0	2+

Antigen Phenotype

	Rh system				Kell				Duffy		Kidd		Lewis		MNSs				A ₁					
	C	E	c	e	K	k	Kp ^a	Js ^a	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Le ^a	Le ^b	S	s	M	N				P1	I	H
Patient																						0		
Pos control																						2+		
Neg Control																						0		

ABO discrepancy #2

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? What is the cause of this ABO discrepancy?
4. Compare the approach taken to this problem to the one in the first problem.
5. Why was the 6% albumin control run in the ABO/Rh typing?