

Transfusionsassoziierte akute Lungeninsuffizienz (TRALI)

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Transfusionsassoziierte Mortalität/Morbidität
abhängig von der Ursache (SHOT Annual Report 2006)
(www.shotuk.org 2007)

	Total	IBCT	ATR	HTR*	PTP	TA-GVHD	TRALI	TTI
Death definitely attributed to transfusion (imputability 3)	47	7	2	6	1	13	8	10
Death probably attributed to transfusion (imputability 2)	15	4	4	1	0	0	6	0
Death possibly attributed to transfusion (imputability 1)	47	13	7	1	1	0	25	0
Subtotal 1	109	24	13	8	2	13	39	10
Major morbidity** probably or definitely attributed to transfusion reaction (imputability 2/3)	315	100	17	29	13	0	118	38
Minor or no morbidity as a result of transfusion reaction	3324	2582	387	280	31	0	38	6
Subtotal 2	3639	2682	404	309	44	0	156	44
Outcome unknown	15	11	3	1	0	0	0	0
TOTAL***	3763	2717	420	318	46	13	195	54

Transfusionsassoziierte akute Lungeninsuffizienz (n = 36, Popovsky & Moore Transfusion 1985)

Klinischer Verlauf

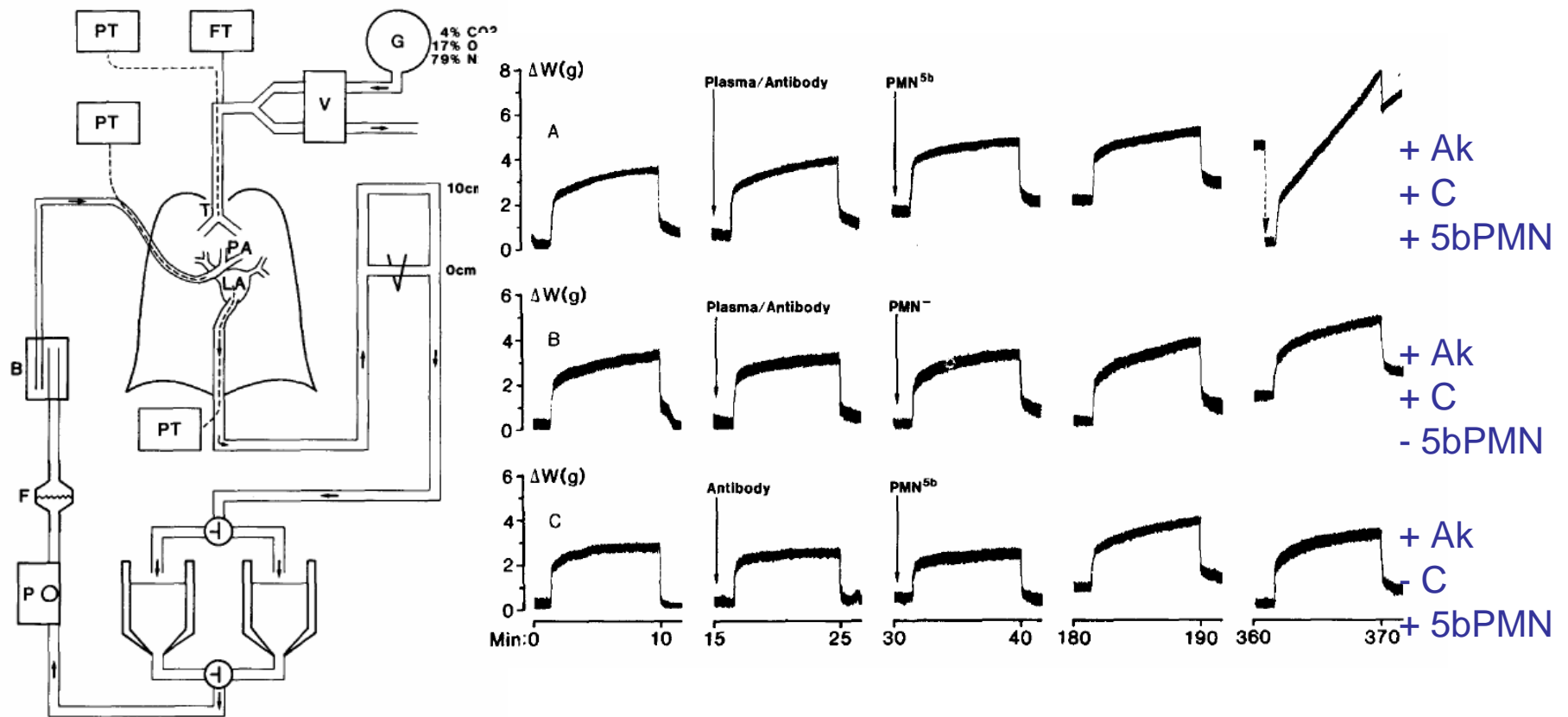
Condition	Cases	
	n	%
Required oxygen support	36	100
Required mechanical ventilation	26	72
Pulmonary infiltrates		
Rapid resolution (< 96 hr)	29	81
Slow resolution (≥ 7 days)	6	17
Mortality	2	6
Long-term sequelae	0	

Serologische Befunde

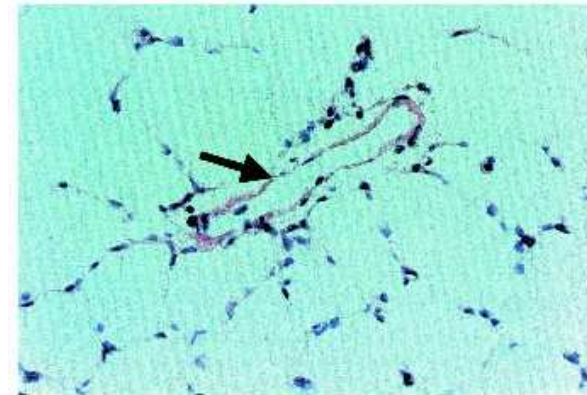
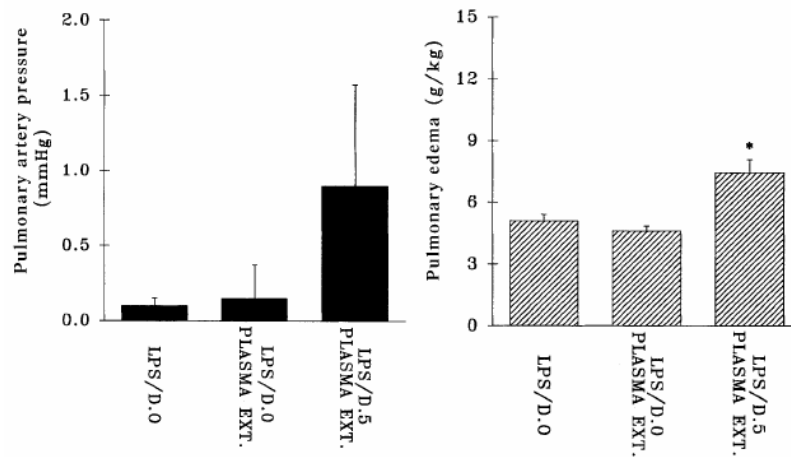
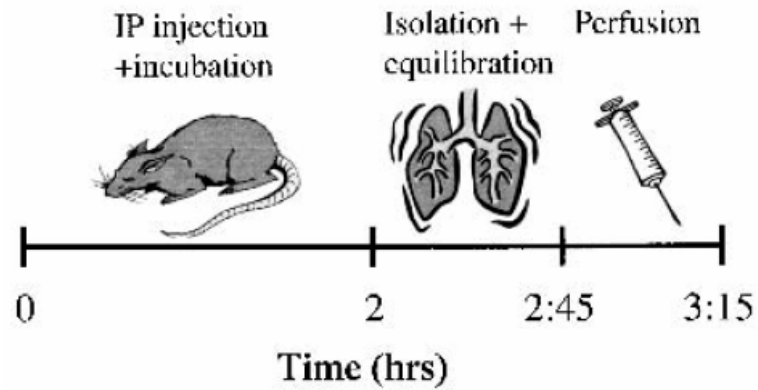
Test	Cases	
	n	%
Granulocyte antibodies		
Patient (pretransfusion)	2	6
Donor	32	89
Lymphocytotoxic antibodies (donor)	26	72
HLA-specific antibodies	11*	65
HLA-antigen (patient)/antibody correspondence	10*	59

* Seventeen patients were tested.

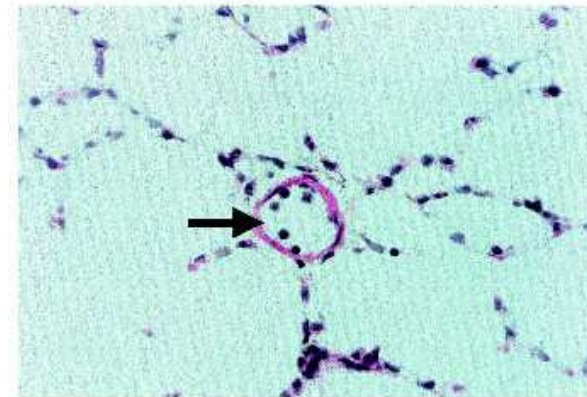
Reproduktion einer TRALI durch Anti-5b (HNA-3a) im ex vivo-Lungenmodell des Kaninchens



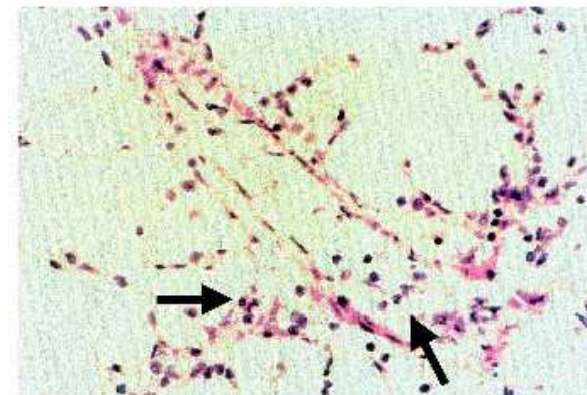
TRALI durch biologisch aktive Lipide aus Thrombozytenkonzentraten



Puffer

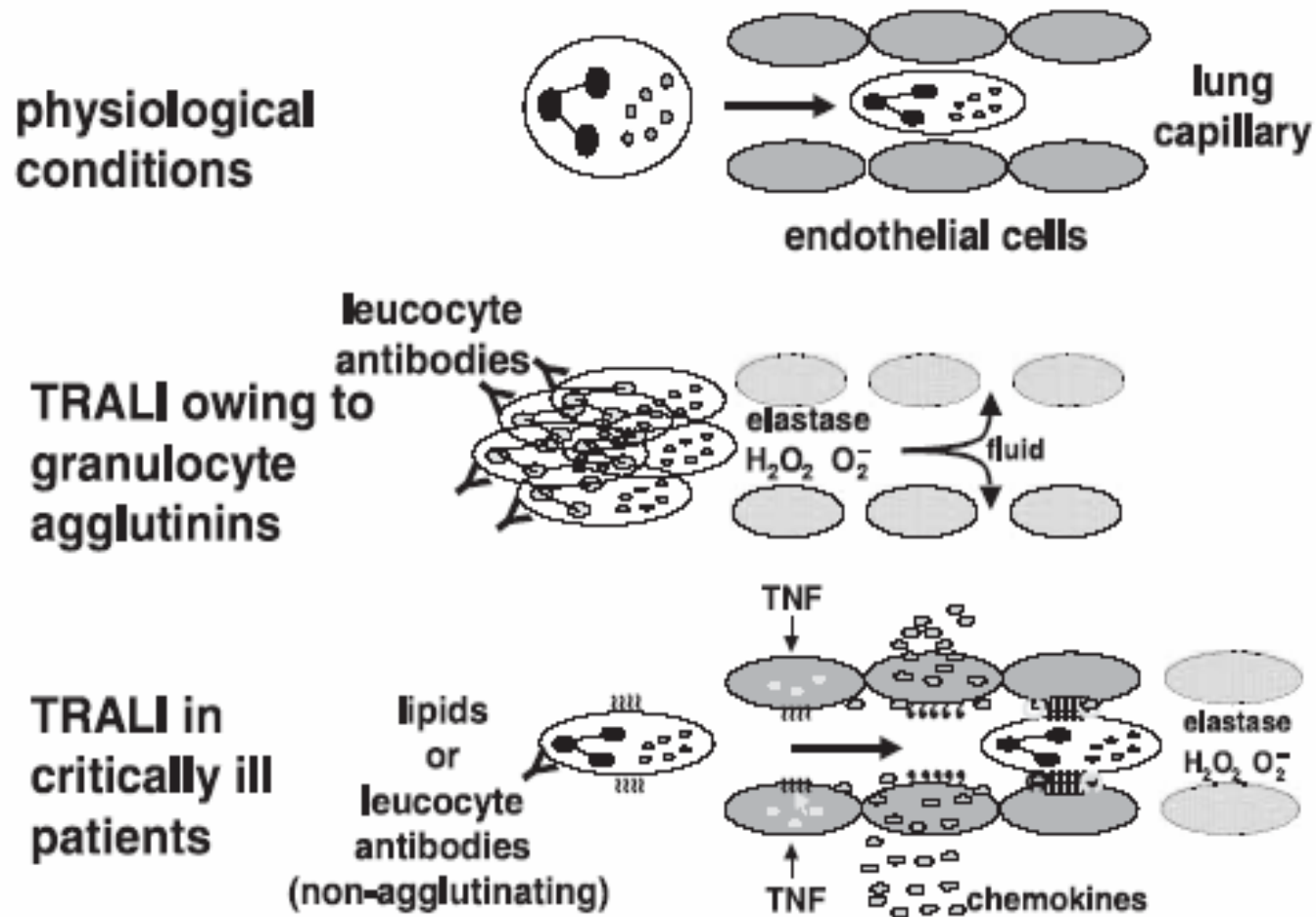


LPS

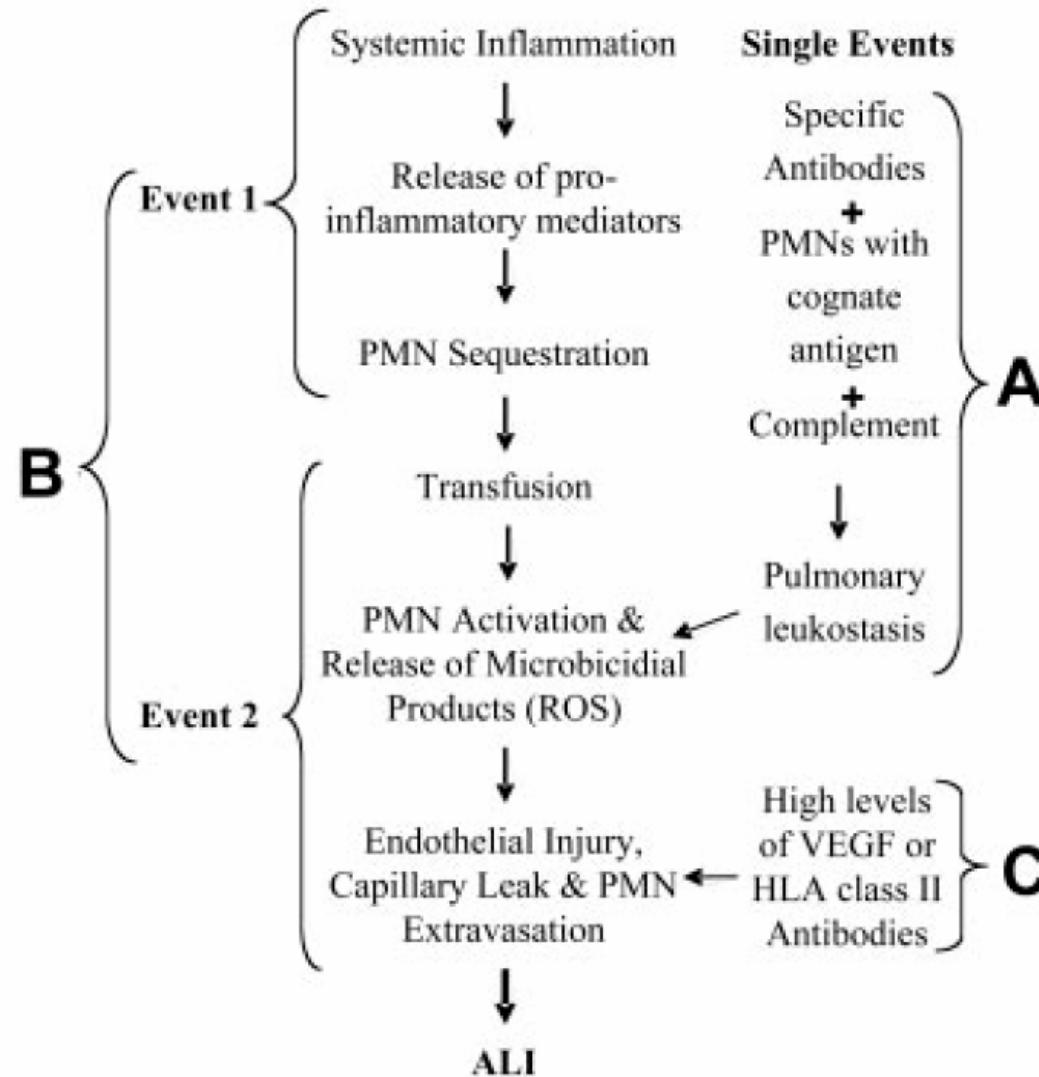


LPS + Lipide

Pathophysiologie der TRALI



Pathophysiologie der TRALI



Blutversorgung in Deutschland (Paul-Ehrlich-Institut 2004)

• Vollblutspenden	4.766.197
• Apheresespenden	1.616.173
• Erythrozytenkonzentrate	4.538.027
DRK-Blutspendedienste	3.347.732
Staatlich-kommunale BSD	951.638
Kommerzielle BSD	189.587
• Gefrorenes Frischplasma	1.180.774
• Apherese-Thrombozyten	242.697
• Pool-Thrombozyten	165.931