

Dataset "Lauxen et al., Neutrophil function in patients with chronic kidney disease: a systematic review and meta-analysis"

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Abstract: This data file contains the summary table of extracted data used for the meta-analysis in the paper by Lauxen et al. "Neutrophil function in patients with chronic kidney disease: a systematic review and meta-analysis" to summarize the current knowledge on neutrophil ROS production under basal or stimulated conditions in patients with CKD stage 5 on dialysis compared to healthy controls.

Subject headings: CKDS dialysis, ROS, neutrophils, meta-analysis

Abbreviations: Ctrl, Control; Cyt c, cytochrome c; E. coli, Escherichia coli; exp., experiment; H2DCF-DA, Dichlorodihydrofluorescein-diacetat; fMLP, N-formyl-methionyl-leucyl-phenylalanine; HD, hemodialysis; n, number; PD, peritoneal dialysis; PMA, Phorbol 12-myristate 13-acetate; PMID, PubMed identifier; ROS, reactive oxygen species; S. aureus, Staphylococcus aureus; SD, standard deviation; S. epidermidis, Streptococcus epidermidis; SOD, superoxide dismutase; SEM, standard error of the mean; TNFalpha, tumor necrosis factor alpha.

(Complementing Table 3 in the manuscript "Lauxen et al, Neutrophil function in patients with chronic kidney disease: a systematic review and meta-analysis")

PMID	Author	Year	Type of ROS assay	Form of dialysis	Measurement of intra- or extracellular ROS	Type of stimulus	Mean exp	SEM exp.	SD exp	Mean control	SEM control	SD ctrl	n exp	n control	N-number correction?	Extracted where?	
21216885	Cohen et al.	2011	Dihydrorhodamine	HD	intracellular	E.Coli	15,2	1,6	6,20	22,8	2	6,93	15	12	no	pg 2273 table 1	
						PMA	31,4	2,8	10,84	64,5	8,1	28,06	15	12	no		
18032524	Cohen-Mazor et al.	2008	SOD-inhibitable cyt c reduction	HD	extracellular	PMA	29,73	1,91	8,54	18,43	1,8	5,69	20	10	no	H654 RESULTS: PMNL Priming in HD Patients Versus NC Subjects	
1328756	Haynes et al.,	1992	lucigenin enhanced chemiluminescence	PD	extracellular	fMLP	15,56	2,87	9,52	10,06	1,8	6,24	11	12	no	pg 694 figure 2	
28523279	Kim et al.	2017	H2DCF-DA	HD	total ROS (extracellular + intracellular)	unstimulated	2811,76		312,22	1628,24		346,71	60	30	no	page 3 figure 1 and pg 4 statistical analysis	
15168383	Otaki et al.	2004	H2DCF-DA	HD	intracellular	unstimulated	92,9	2,3	9,48	95,3	0,7	2,89	17	17	no	pg 1035-1036 Results: PMNL function	
9555668	Patruta et al.	1998	SOD-inhibitable cyt c reduction	HD	extracellular	unstimulated	0,69	0,1	0,32	0,4	0,1	0,30	10	9	no	pg 659 figure 2	
						PMA	2658,82	430,43	1361,14	5484,42	1136,45	3409,35	10	9	no	pg 659 figure 2	
14511363	Perianayagam et al.	2003	H2DCF-DA	HD	intracellular	unstimulated	211		115	23		5	11	12	no	pg. 907 text: results-> basal H2O2 generation	
9434073	Porter et al.	1997	H2DCF-DA	PD	intracellular	S.epidermidis	57,9	6,6	20,87	60,4	3,5	15,65	10	20	no	pg 480 table 1	
			Luminol enhanced chemiluminescence	PD	total ROS (extracellular + intracellular)	S.epidermidis	26,494	6,219	19,67	28,97	5,941	26,57	10	20			
16155068	Sardenberg et al.	2006	H2DCF-DA	HD	intracellular	unstimulated	34		17	54		32	14	7	yes, uncorrected control n=14	pg 136 table 2	
						S.aureus	164		130	320		241	14	7			
						fMLP	52		25	103		66	14	7			
						PMA	73		77	110		123	14	7			
				PD		unstimulated	73		38	54		32	14	7			
						S.aureus	620		425	320		241	14	7			
						fMLP	188		131	103		66	14	7			
						PMA	179		96	110		123	14	7			
15987755	Sela et al.	2005	SOD-inhibitable cyt c reduction	HD	extracellular	PMA	25,7	1,59	8,71	10,14	1,02	5,59	30	15	yes, uncorrected control n=30	pg 2433 figure 2	
						Zymosan	4,19	1,47	6,57	15,83	5,63	25,18	20	10	yes, uncorrected control n=20		
				PD		extracellular	PMA	20,45	1,59	8,71	10,14	1,02	5,59	30	15		yes, uncorrected control n=30
							Zymosan	5,24	0,68	3,04	15,83	5,63	25,18	20	10		yes, uncorrected control n=20

PMID	Author	Year	Type of ROS assay	Form of dialysis	Measurement of intra- or extracellular ROS	Type of stimulus	Mean exp	SEM exp.	SD exp	Mean control	SEM control	SD ctrl	n exp	n control	N-number correction?	Extracted where?
8725616	Ward et al.	1996	Reduction of ferricytochrome-C	HD	extracellular	fMLP	2,1		0,9	3		2,4	8	16	no	pg 393 table 2
						fMLP + TNFalpha	5		1,6	9		3,6	8	16		
3245485	Cohen-Hagai et al.	2020	Dihydrorhodamine	HD	intracellular	E.coli	18		1,42	30		2,33	44	15	no	p7/8
						PMA	64		5,22	95		6,95	44	15		
12472803	Ward et al.	2003	H2DCF-DA	HD	intracellular	unstimulated - F80A	2,33	0,28	0,93	1,43		0,49	11	9	yes, uncorrected control n=18	p355 figure 1
						unstimulated - CT190G	2,57	0,19	0,63	1,47		0,49	11	9		p356 figure 2
						S.aureus -F80A	121,4	19,13	63,45	60,00		10,00	11	9		
						S.aureus -CT190G	130,44	14,27	47,33	60,00		10,00	11	9		
17136029	Yoon et al.	2007	Dihydrorhodamine	HD	intracellular	unstimulated	18,62	1,84	7,81	13,23	1,28	5,43	9	9	yes. Uncorrected control and exp. n=18	p169 figure 5
			Dihydroethidium		intracellular	unstimulated	17,72	1,85	7,85	12,9	0,40	1,70	9	9		
14717942	Rao et al.	2004	Reduction of ferricytochrome-C	HD	extracellular	PMA all patients	32,3	0,7	10,02	52	4,3	13,60	205	10	no	p686 table 4
						fMLP all patients	22,3	1,6	12,90	19	1,6	5,06	65	10		
36284314	Talal, et al.	2022	chemiluminescence	HD	extracellular	PMA	7759,91	696,77	1706,73	14868,66	1675,58	4104,32	6	6	no	p.11 graph B
10095176	Kristal et al.	1998	SOD-inhibitable cyt c reduction	HD	extracellular	PMA	25,78	1,37	7,50	10,1	1,18	6,46	30	30	no	p. 408 figure 1
12227686	Guo et al.	2002	H2DCF-DA	HD	intracellular	unstimulated	474	78	258,70	213	16	50,60	11	10	no	p. 137 text
						S.aureus	1091	233	772,77	468	105	332,04	11	10		
						fMLP	951	168	557,19	579	132	417,42	11	10		
						PMA	1278	215	713,07	1635	255	806,38	11	10		p.38 figure 1