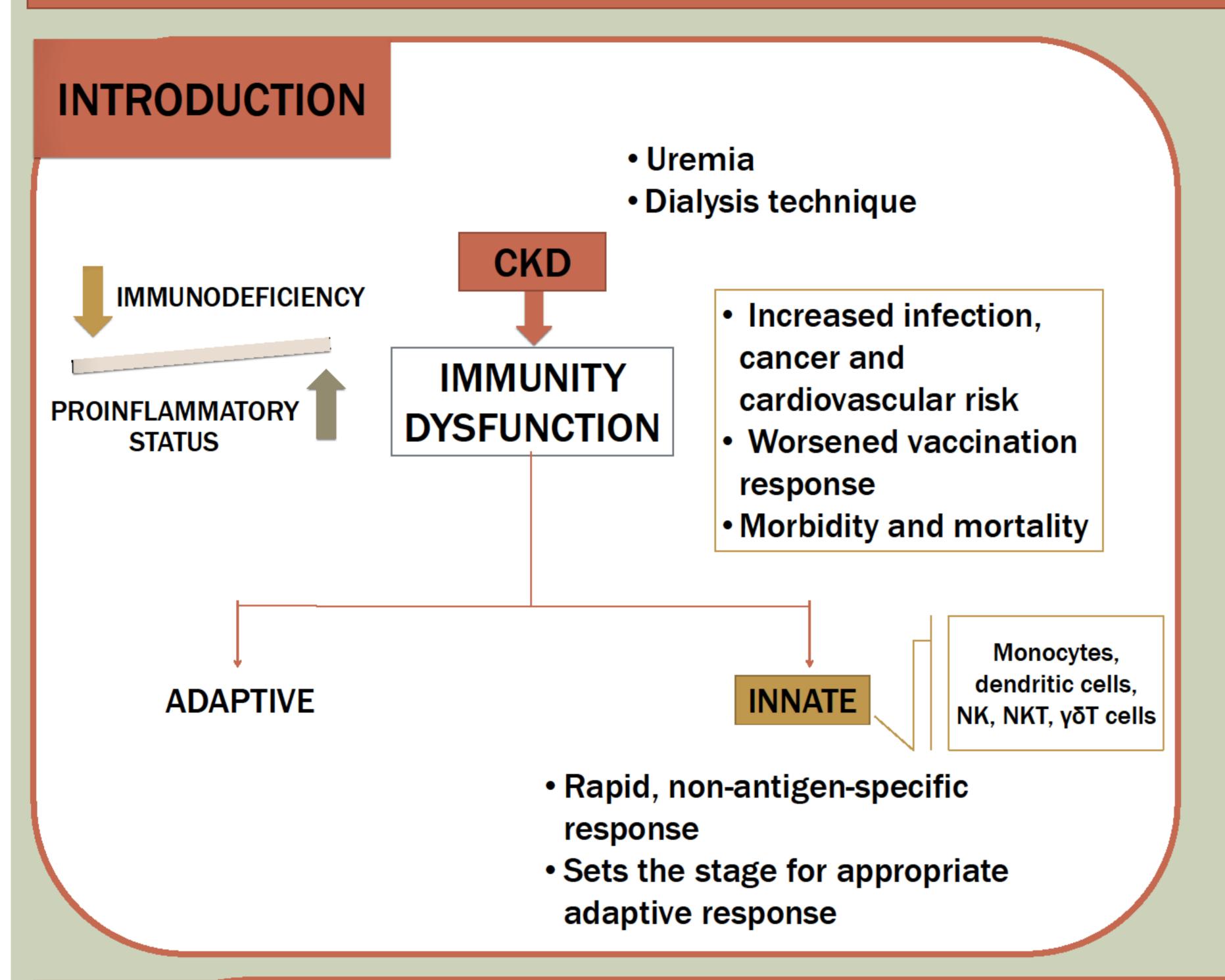
INNATE IMMUNITY DYSFUNCTION IN END-STAGE RENAL DISEASE: A PROSPECTIVE STUDY ON PERITONEAL DIALYSIS AND HEMODIALYSIS

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OBJECTIVES

- Changes in the main innate immune cell types in patients undergoing dialysis?
- Differences between peritoneal and haemodialysis

MATERIALS AND METHODS

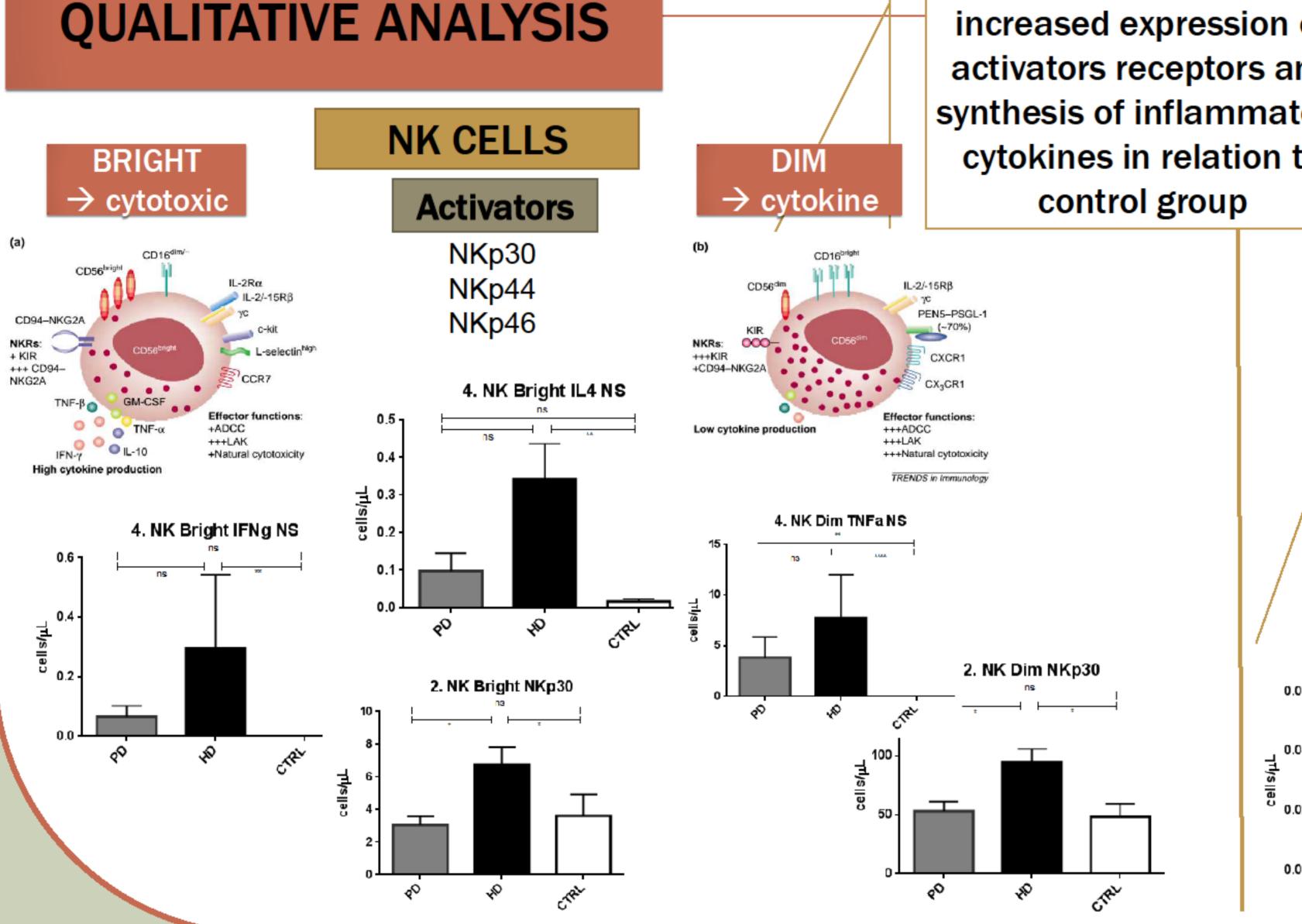
- Prospective, case control, observational study
- •21 PD patients + 20 HD patients + 12 healthy controls (Exclusion: active infection & neoplasia)
- Peripheral blood was collected (pre HD and DP medical appointment)
- Demographic data and dialysis parameters
- Total cell count and characterization of sub populations by flow cytometry

RESULTS

DEMOGRAPHIC DATA							
	PD	HD	р				
Age	52 +-14,7	61 +-7,4	0,01				
Months dialysis	30 +-19,7	36 +-33,7	NS				
Kt/V	2,45 +-0,5	1,7+-0,2	-				
EPO (mcg/Kg/M)	0,76 +-4,7	0,83 +- 0,8	NS				
CRP	0,77+-1,2	0,85 +-1,1	NS				

QUANTITATIVE ANALYSIS						
	PD	р	HD	Control	р	
Leukocytes	6995 +-1682	NS	5455 +-1383	5069 +-2030	*	
Lymphocytes	1740 +-679	NS	1795 +-597	1685 +-786	NS	
Monocytes	336,8+-177	NS	252,6+-252	121,4+-121	*	
Dendritic Cells	12,99 +-13	NS	12,95+-6,8	32,14+-14	*	
NK Cells	124,4 +-81	NS	180 +-101	171,2 +-78	NS	

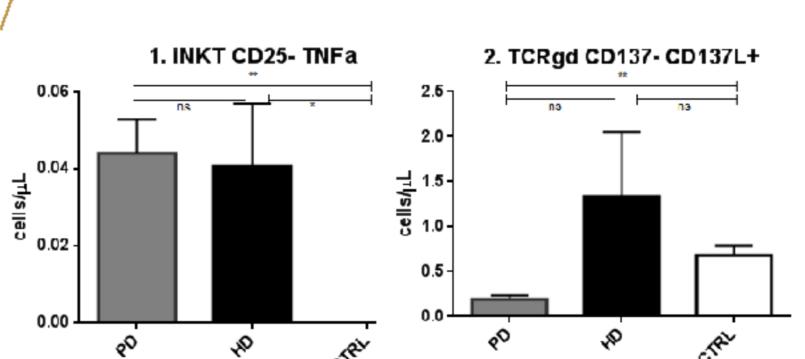
* p<0,05

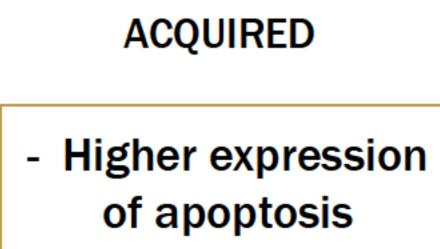


Dialysis patients show increased expression of activators receptors and synthesis of inflammatory cytokines in relation to

NKT e Tγδ CELLS

- NKT e γδT cells: secretion of immunomodulation cytokines;
- In dialysis patients there is a higher expression of **TNFα e CD137**;
- These differences are more pronounced in HD group



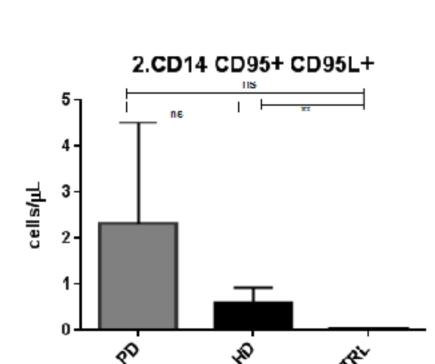


MONOCYTES

CONNECTING LINKS:

INNATE IMMUNITY AND

markers CD95 e CD95L in PD patients



CONCLUSIONS

- There is a significant dysfunction among cell populations of innate immunity (NK, NKT, Tγδ, monocytes, dendritic cells) in CKD-dialysed patients compared with a healthy population \rightarrow exacerbated pro-inflammatory state;
- The inflammatory status and apoptosis seem more significant in HD patients
- Clinical correlation and impact need to be evaluated.
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