Endothelial micro-particles in patients with chronic kidney disease and cardiovascular disease

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Introduction: Chronic kidney disease is characterized by loss, normally gradual and progressive, of the excretory capacity by kidneys and constitutes a serious public health problem and higher rate of cardiovascular events as acute myocardial infarct, stroke and mortality when compared to the general population. Endothelial micro-particles are shed by the membrane of different cell types after activation or apoptosis and are related to classic risk factors and cardiovascular disease.

Objective: Evaluate if the progression of kidney disease is related to the increase in circulating endothelial micro-particles, in patients with established cardiovascular disease.

Methods: Some variables related to kidney disease (urine and serum creatinine, albumine/creatinine relation, glomerular filtration rate) were correlated with endotelial micro-particle levels, in patients with cardiovascular disease (n=84), comparing the values obtained to micro-particles according to the stage of kidney failure.

Results: There were no significant correlations between the parameters evaluated (correlation between endothelial micro-particles and serum creatinine [Spearman, rho = -0.208; p = 0.064]; correlation between endothelial micro-particles and glomerular filtration rate [Spearman, rho = 0.194, p = 0.085]), other correlations also not significant.

Conclusion: There was no evidence concerning the increase of endothelial micro-particles related to the progression of kidney disease in patients with cardiovascular disease.

Biography
Carolina Nunes França has completed her PhD from Federal University of Sao Paulo, Brazil and Post-doctoral studies from University of Bonn, Germany. She is Professor of University of Santo Amaro – UNISA (Health Science Post Graduation), Brazil. She has published more than 36 papers in reputed journals.

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