

CORRELATION OF RESIDUAL RENAL FUNCTION WITH CARDIOVASCULAR RISK FACTORS IN PERITONEAL DIALYSIS PATIENTS: A MULTICENTRE STUDY

Basic-Jukic N, Radic J, Vujicic B, Altabas K, Klaric D, Grdjan Z, Gulin M, Radulovic G, Juric K, Jankovic N, Kovacevic-Vojtusek I, Coric V, Jakic M, Racki S; Croatian society for nephrology, dialysis and transplantation



INTRODUCTION

Residual renal function (RRF) was found to be an important predictor of mortality and cardiovascular (CV) deaths in peritoneal dialysis (PD) patients, and contributes more significantly to overall survival than PD clearance. We investigated correlation between RRF with parameters associated with CV outcomes in PD patients.

PATIENTS AND METHODS

190 PD patients from 13 dialysis centres were included in investigation. Biomarkers of anaemia, nutritional status (malnutrition inflammation score (MIS), subjective global assessment (SGA), serum albumins, body mass index (BMI), anthropometric measurements), dialysis dose (Kt/V) and laboratory measurements were determined. RRF was estimated as volume of daily urine.

RESULTS

There were 78 (41.05 %) females and 112 (58.95 %) males; aged 57.35 ± 14.41 years, treated with PD for 24.96 ± 24.43 months. 56 patients had diabetes. The mean RRF was $1170 \pm 673,6$ ml (range 0-3000 ml). Statistically significant correlations between RRF and BMI, hip circumference, time on PD, Kt/V, MIS, SGA, E, Hb, PTH, and serum albumins were found (Table 1).

Variable	Correlation coefficient	P
BMI (kg/m ²)	0,3341	0,000003
Hip circumference (cm)	0,2571	0,0062
PD vintage (months)	-0,3927	0,00000003
Kt/V	0,4374	0,000000007
MIS	-0,4767	0,0000005
SGA	-0,3048	0,0087
E	0,1524	0,0384
Hb	0,1614	0,0282
PTH (pmol/L)	-0,1816	0,0174
albumins (g/L)	0,2263	0,0022

Table 1. Statistically significant correlations between RRF and CV disease related parameters in PD patients. (Pearson correlation coefficient, one-tailed significance level)

This study demonstrated significant correlation of RRF with numerous well known cardiovascular risk factors. Every effort should be invested to maintain RRF as long as possible to achieve optimal treatment results and decrease CV mortality in PD population