EVALUATION OF CARDIAC RISK SCORE AND QUALITY OF LIFE SURVEY IN CHRONIC HEMODIALYSIS PATIENTS

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BACKGROUND: The purpose of this study was to analyze the independent clinical, laboratory, dialysis factors between a disease-specific score for cardiac risk stratification and the Quality of life (QOL) application in hemodialysis (HD) patients.

METHODS: A total of 43 end-stage renal disease patients (female 17 and male 26) on regular HD were included. They were clinically stable with a mean Kt/V (Daugirdas) of 1.76 ± 0.41 and mean dialysis duration of 7.4 ± 0.94 years. Patients answered the Kidney Disease Quality of Life questionnaire short form (KDQOL-SF), which includes the physical and mental health component (PHC, MHC). Application of a previously validated cardiac risk score (CRS) using cardiac history (A), dialysis duration (B), body mass index (C) and serum phosphate (D) multiplied by various hazard ratios (HR) was also investigated retrospectively. CRS (A+B+C+D) < 50 denoted low risk, and CRS $\geqq$ 50 stood for high risk of future cardiac events. The impact of various factors on CRS and KDQOL-SF was estimated by multivariate analysis using SPSS 10.0 depending on variables characteristics.

RESULTS: Most of the KDQOL-SF scores specific for dialysis significantly correlated with Hct, albumin, electrolytes, age, dose of HD and social support ($p<0.01$). CRS$\geqq$50 was found in 19 patients and 6 had cardiac events after electrocardiography and cardiac stress imaging proven in the following observed 9-month period. CRS< 50 were in the remaining 24 patients, with 1 cardiac event occurring. PHC and MHC in QOL were significant in the CRS$\geqq$50 group ($p<0/01$), while only MHC in QOL was found in the CRS< 50 group ($p<0/01$) . Dialysis year was irrelevant to the QOL statistically, but was proportionate with CRS.

CONCLUSIONS: Greater PHC and MHC score in QOL with less CRS value is found among younger patients with shorter dialysis duration, sufficient correction of serum electrolytes including phosphate toward normal, and adequate social and emotional interaction of HD patients.

Keywords: Cardiac risk score, Quality of life, Hemodialysis