THE RELATIONSHIP OF MALNUTRITION, INFLAMMATION, AND CARDIOVASCULAR DISEASE IN CHRONIC PERITONEAL DIALYSIS PATIENTS

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BACKGROUND: The uremic malnutrition, chronic inflammation and cardiovascular disease (CVD) often coexist in hemodialysis patients, and they are the most important predictors of clinical outcome. The aims of the study were to investigate the relationship of malnutrition, inflammation, and CVD in patients on chronic peritoneal dialysis (CPD).in Taiwan**.**

METHODS: Our study enrolled 92 CPD patients (36 males and 56 females) from the PD unit of National Cheng Kung University Hospital, Taiwan. We compared the measured anthropometry, biochemical parameters, serum CRP, and assessment of nutritional status using a 7-point of subjective global assessment (SGA) scale between the CVD and non - CVD patients or the inflammation and non - inflammation patients.

RESULTS: Forty-one patients (55%) had malnutrition, 12 patients (13%) had CVD, and 23 patients (25%) had high serum CRP levels ($\geq$ 8 mg/L). The CVD group had significantly higher prevalence in malnutrition and high serum CRP levels than the non - CVD group. We found that the patients with high serum CRP levels had significantly higher percentage of CVD, higher serum uric acid levels and anthropometry parameters than the low CRP ($<$ 8 mg/L) group. In the CVD group, 4 patients (33%) had malnutrition, 2 patients (17%) had high serum CRP levels, and 6 patients (50%) had both elevated serum CRP levels and malnutrition.

CONCLUSIONS: Our findings indicated that there was a strong link between inflammation (high CRP level) and CVD in chronic PD patients, but malnutrition was not so evident compared with the other two components of MIA complex syndrome in our PD group.

Keywords: malnutrition, inflammation, cardiovascular disease