

RESIDUAL RENAL FUNCTION AS THE CORNERSTONE OF BETTER SURVIVAL PATIENTS ON PERITONEAL DIALYSIS

Pilčević D¹, Rabrenovic V¹, Petrovic M¹, Petrovic M¹

Clinic of nephrology, Medical Faculty of the Military Medical Academy, University of defense in Belgrade, Republic of Serbia¹



WCN25-AB-1418



INTRODUCTION

The positive impact of residual renal function (RRF) on the total amount of weekly clearances of small molecules, improvement of cardiac function and surviving in peritoneal dialysis (PD) is well known

On the other hand, poor nutritional status and volume overload in these patients are recognized as negative prognostic factors

In our study we analyzed impact of RRF on nutritional status and volume control in our patients

METHODS

Retrospective analysis of 53 patients with at least a 5-year history of PD treatment; RRF was determined by a daily diuresis more than 200ml

We analyzed nutritional (percentage body fat, serum albumin concentration, creatinine, transferrin, normalized protein catabolic rate) and volume parameters (EF, BNP and BCM)



RESULTS

Patients were classified into two groups: with RRF (mean, 550 ml; range, 210-2400 ml), N=38; and without RRF (mean, 45 ml; range, 0-200 ml), N=15

There were no significantly difference in age, gender distribution, previous history of heart attack or revascularization of myocardium, diabetes mellitus comorbidity, peritoneal membrane transport characteristic, percentage of body fat, transferrin, albumin and creatinine concentration

Total Kt/V urea being equal in both groups

Total duration of dialysis, mean normalized protein catabolic rate, ejection fraction and BNP were significantly different in these two groups

Number of overhydration patients was also higher in group without RRF (p<0.01).

| | No of patients | RRF (ml/24h) p<0.01* | PCR (g/kg/day) p<0.01* | Kt/V | Duration on PD (age) | Ejection Fraction (%) p<0.01* | BNP (pg/ml) p<0.01* | Overhydration (No/%) p<0.01* |
|--------------------|----------------|-------------------------|---------------------------|-------------------|----------------------|----------------------------------|------------------------|---------------------------------|
| WITH RRF | 38 | 550 | 1.12 | 2,15 ± 0,2 | 6,1 ± 0,8 | 52 ± 6,2 | 796 ± 21 | 20 (52.63) |
| WITHOUT RRF | 15 | 45 | 0.91 | 2,08 ± 0,1 | 5,3 ± 0,6 | 38 ± 4,5 | 2434 ± 81 | 11 (73.33) |

CONCLUSION

Almost two third of our PD patients had sufficient RRF, majority with shorter duration on PD

We have shown that RRF alone can beneficially influence nutritional parameters, control of volume status and preservation of left ventricular function, which consequently can significantly improve survival of patients and PD modality option