

PERITONEAL DIALYSIS IS A REASONABLE OPTION IN PATIENTS WITH CARDIOVASCULAR DISEASE

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INTRODUCTION

Cardiovascular (CV) disease is the leading cause of morbidity and mortality in kidney disease patients (CKD), most notably in those with end-stage renal disease (ESRD). Peritoneal Dialysis (PD) has been proposed as a therapeutic option for patients with ESRD and CV disease.

SUBJECTS AND METHODS

Objective: Our aim was to compare incident PD patients with and without CV disease at baseline, in order to determine its prevalence and outcomes in long-term PD patients.

Methods: Prospective study performed at a single PD Unit; 112 consecutive incident patients admitted during 5 years (2010-2014) to the PD program were studied. Patients' demographic characteristics and laboratorial results were recorded at baseline.

Background of CV disease at PD initiation was defined as: (1) coronary artery disease, (2) cerebrovascular disease, (3) heart failure or (4) peripheral arterial disease.

Laboratory measurements as well as PD adequacy were obtained at the beginning of PD and at the last evaluation. Clinical events such as peritonitis and hospitalization events were also recorded.

The outcomes examined were patient survival, technique failure, nutritional and PD adequacy data, and hospitalization and peritonitis rate.

RESULTS

	Total	CV Disease	No CV disease	P value
Patients (n)	112	30	82	
Male (n,%)	73(65.2)	19(63.3)	54(65.9)	NS
Diabetes (n,%)	42(37.8)	16(53.3)	26(31.7)	0.036
Age, years (mean±SD)	53.1±16.1	62.8±13.1	49.7±15.7	<0.05
Etiology of CKD (n%)				
Diabetes Nephropathy	35 (31.3)	22 (26.9)	13 (43.3)	
Unknown	22 (19.6)	18 (22)	4 (13.3)	
Chronic glomerulonephritis	17 (15.2)	14 (17.1)	3 (10)	
Nephroangiosclerosis	12 (10.7)	8 (9.7)	4 (13.3)	
ADPKD	8 (7.1%)	8 (9.7)	0	
Chronic pyelonephritis	7 (6.3%)	5 (6.1)	2 (6.8)	
Other etiologies	11 (9.8%)	7 (8.5)	4 (13.3)	
Time under PD - months (mean±SD)	22,1±15,7	21.4±13.6	22.4±16.5	NS
CAPD/APD (n%)	76 (67.9)/36 (32.1)	20(66.7)/10(33.3)	56(68.3)/26(31.7)	NS
Icodextrin (n,%)	48(42.9)	17(56.6)	31(37.8)	NS
Residual diuresis – ml/day (mean±SD)		1162,8±1026,8	1387,3±1144	NS
eGFR – mL/min/1,73m ² (mean±SD)		5,9±4,8	7±4,4	NS
Weakly Kt/v (mean±SD)		2,34±0,6	2,7±0,8	NS
BMI - Kg/m ² (mean±SD)	25,7±4,7	24.8±8.4	23.6±7.9	NS
CPR - mg/dL (mean±SD)	1.17±1	1.5±1.4	1.1±0.9	NS
Albumin - g/dL (mean±SD)	3.4±0.6	3.3±0.8	3.5±0.5	NS
nPCR - g/Kg/day (mean±SD)	0.9±0.3	0.9±0.4	0.9±0.5	NS
Hospitalization rate (episodes/patients.year)		0,99	0,72	NS
Peritonitis rate (episodes/patients.year)		0,69	0,61	NS

- There were no significant differences in the following results between both groups: patient and technique survival, laboratorial results, PD adequacy, peritonitis and hospitalization rate.
- Age and diabetes were independent predictors of death (p=0,023), but not of technique failure.

CONCLUSION

In our study, PD was a safe, valid and effective renal replacement therapy in patients with CV disease.

