

Chronic inflammation and end-dialysis overweight. A 36 month prospective observational study

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Introduction

Attaining dry body weight is paramount in dialysis practice, but this goal is not always reached.

We hypothesized that the amount of end-dialysis overweight (edOW), could be associated to increased chronic inflammation and mortality.

Aim of the study: to evaluate the effect of edOW on serum C-reactive protein (hsCRP) concentrations and on survival in a cohort of 182 prevalent HD patients (pts) followed for 36 months.

Results

Table 1: mean±SD of UFR, dBW, hsCRP, Kt/V, PCRn, IDWG, MAP in patients under study.

Figure 2: edOW and hsCRP were directly and significantly correlated ($r=0.67$; $p<0.0001$).

Figure 3: comparison between pts with (**Group 1**) and without (**Group 2**) edOW showed significant differences in UFR, hsCRP, and PCRn.

98 pts (54%) died during follow-up for cardiovascular complications in 69% of cases.

Figure 4: survival curves showed significantly greater mortality in Group 1 vs Group 2 in relation to the amount of edOW, and hsCRP ($p<0.0001$).

Patients and methods

182 pts (117 men, age 65 ± 12 years, vintage 48 months; range 6-336).

Figure 1: edOW was present in 98/182 pts (54%). Mean value was 0.4 ± 0.2 Kg (range: 0.1-1.4).

In the 98 pts with edOW (**Group 1**) and in the other 84 (**Group 2**) we evaluated: Ultrafiltration rate(UFR), hsCRP, dry body weight (dBW), Kt/V, protein catabolic rate (PCRn), interdialytic weight gain (IDWG), mean arterial pressure (MAP).

Unpaired Student's t test was employed to compare groups, linear regression analysis to test correlations, log-rank test and Kaplan-Meier curves to evaluate survival.

Conclusions

end-dialysis overweight and chronic inflammation are directly correlated in HD pts, and both are associated to a greater long-term risk of mortality.

TABLE 1

	M±DS
UFR (ml/Kg/ora)	11.7±2.8
dBW (Kg)	64±12
hsCRP (mg/L)	8.8±7.9
Kt/V	1.27±0.09
PCRn (g/Kg/die)	1.06±0.10
IDWG (Kg)	2.8±0.4
MAP(mmHg)	97±6.5

Figure 1

Patients with and without edOW

