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## DIALYSIS. EPIDEMIOLOGY, OUTCOME RESEARCH, HEALTH SERVICES RESEARCH - 2

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### CHRONIC INFLAMMATION AND END-DIALYSIS OVERWEIGHT. A 36 MONTH PROSPECTIVE OBSERVATIONAL STUDY

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**Introduction and Aims:** 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.

**Methods:** In 182 pts (117 men, age 65±12 years, vintage 48 months; range 6-336), edOW was present in 98/182 (54%) pts. 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), hsCRPdry 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.

**Results:** Mean UFR was 11.7±2.8 ml/Kg/hour, dBW 64±12 Kg, hsCRP 6.6 (0.2-36) mg/L, Kt/V 1.27±0.09, PCRn 1.06±0.10 g/Kg/day, IDWG 2.8±0.4 Kg, MAP 97±6.5 mmHg. edOW and hsCRP were directly and significantly correlated (r= 0.67; p<0.0001). Comparison between pts with (Group 1) and without (Group 2) edOW showed significant differences in: UFR (12.7±2.6 vs 10.9±2.6 ml/Kg/hour; p< 0.0001), hsCRP (13.0±8.1 vs 5.2±5.3 mg/L; p< 0.0001), and PCRn (1.03±0.09 vs 1.08±0.10 g/Kg/day; p<0.004). 98 pts (54%) died during follow-up for cardiovascular complications in 69% of cases. Survival curves showed significantly greater mortality in Group 1 vs Group 2 in relation to the amount of edOW, and hsCRP (p<0.0001).

**Conclusions:** edOW and chronic inflammation are directly correlated in HD pts, and both are associated to a greater long-term risk of mortality.