



## «HIPERTENSIÓN Y ENFERMEDAD CARDIOVASCULAR EN HEMODIÁLISIS»

### *The effect of dialysis dosage on morbidity and mortality of hemodialysis patients*

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Mortality rate of American hemodialysis patients is among the highest of the industrialized nations, and it was suggested that it may be related to decreased dialysis dosage. In this study we sought to evaluate the effect of increasing dialysis dosage on the morbidity and mortality of chronic hemodialysis patients. The morbidity and mortality of 78 hemodialysis patients were studied prospectively over a 12 months period after intensifying the dialysis prescription, and was compared to that of the preceding 12 months. The mean age of the patient population was 56 years and the mean length of time on dialysis was 5.86 years; 46 were females and 32 were males; 40% of all patients were diabetic. *Prescribed dialysis dosage:* A minimum of 4 hours three times a week (22% were dialyzed more than 4 hours); blood flow of 500 ml/min; dialysate flow of 800 ml/min. *Previous dialysis dosage:* consisted of 4 hours of dialysis three times a week; blood flow of 300-350 ml/min; dialysate flow of 500 ml/min. All patients were dialyzed using polysulfone membrane without dialyzer reuse. *Results:* prior to the study pe-

riod, the mean Urea Reduction Rate (URR) was 71.6%, with 29% of the patients having URR < 65%. The mean URR during the study period increased to 75.7%, with less than 5.8% of the patients having URR < 65% ( $p < 0.05$ ). While the mean albumin concentration was the same during both periods (3.8 g/dl), the fraction of patients having Alb < 3.5 g/dl, decreased from 16 to 8%. Likewise, the mean Hematocrit (Hct) did not change (33.4% prior to increasing dialysis prescription, vs 33.7% after), but the fraction of patients having Hct < 28% decreased from 13 to 3%, in the face of declining EPO requirement. In addition, concomitant with an average reduction of 2.2 kg in mean dry weight, there was a significant reduction in the number of patients requiring blood pressure medications from 70 to 20%. Gross mortality decreased from 12 to 7% ( $p < 0.05$ ), and the fraction of hospitalized patients at any given month decreased from 3% to < 2%.

*Conclusion:* During a single year observation, we find that increased dialysis dosage significantly reduces morbidity and mortality on hemodialysis.