The benefit of salt restriction in the treatment of end-stage renal disease by haemodialysis.


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BACKGROUND: Most haemodialysis (HD) centres use anti-hypertensive drugs for the management of hypertension, whereas some centres apply dietary salt restriction strategy. In this retrospective cross-sectional study, we assessed the effectiveness and cardiac consequences of these two strategies. METHODS: We enrolled all patients from two dialysis centres, who had been on a standard HD programme at the same centre for at least 1 year. All patients underwent echocardiographic evaluation. Clinical data were obtained from patients' charts. Centre A (n = 190) practiced 'salt restriction' strategy and Centre B (n = 204) practiced anti-hypertensive-based strategy. Salt restriction was defined as managing high blood pressure (BP) via lowering dry weight by strict salt restriction and insistent ultrafiltration without using anti-hypertensive drugs.

RESULTS: There was no difference regarding age, gender, diabetes, history of cardiovascular disease and efficiency of dialysis between centres. Antihypertensive drugs were used in 7% of the patients in Centre A and 42% in Centre B (P < 0.01); interdialytic weight gain was significantly lower in Centre A (2.29 +/- 0.83 kg versus 3.31 +/- 1.12 kg, P < 0.001). Mean systolic and diastolic blood pressures were similar in the two centres. However, Centre A had lower left ventricular (LV) mass (indexed for height(2.7): 59 +/- 27 g/m(2.7), P < 0.001). The frequency of LV hypertrophy was lower in Centre A (74% versus 88%, P < 0.001). Diastolic and systolic functions were better preserved in Centre A. Intradialytic hypotension (hypotensive episodes/100 patient sessions) was more frequent in Centre B (11 versus 27, P <0.01). CONCLUSIONS: This cross-sectional study suggests that salt restriction and reduced prescription of antihypertensive drugs may limit LV hypertrophy, better preserve LV functions and reduce intradialytic hypotension in HD patients.

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