Letters

Dialysate sodium concentration and blood pressure control in haemodialysis patients

Sir,

Recently, Krautzig et al. reported a decrease in pre-dialysis systolic and diastolic blood pressure in eight patients when dialysate sodium was reduced from 140 to 135 mmol/l without a change in dry weight [1]. They also put special emphasis on dietary salt restriction during the study. In a pilot study, we also decreased dialysate sodium concentration from 140 to 136 mmol/l during a 6-week time period. Although patients are routinely prescribed a sodium restricted diet (2000 mg) in our centre, no extra dietary interventions were performed during the study. Six male hypertensive dialysis patients (mean age 58±15 years) were studied. Dry weight was not changed during the study, whereas post-dialytic extracellular resistivity, assessed by multifrequency bioimpedance analysis, remained stable (650±55 vs 688±89 Ω). In contrast to the results of Krautzig et al., mean pre-dialytic systolic and diastolic blood pressure did not change significantly during the study (144±19 vs 155±27 and 83±4 vs 86±14 mmHg), nor did post-dialytic systolic and diastolic blood pressure (147±19 vs 134±28 and 81±4 vs 80±12 mmHg). A clear reduction in pre- and post-dialytic blood pressure was observed in only one patient. In contrast, the decline in systolic blood pressure during dialysis tended to decrease significantly during the study (18±25 vs 30±16 mmHg; P=0.06). In conclusion, in our small pilot study a decrease in dialysate sodium without additional dietary interventions did not lead to a reduction in blood pressure in hypertensive dialysis patients, whereas the blood pressure drop during dialysis tended to be higher when dialysate sodium was reduced. The discrepancy between our results and the data of Krautzig et al. who did find a beneficial effect of lowering dialysate sodium on blood pressure regulation in dialysis patients, might be explained by the additional dietary efforts in their study. In our hands, a reduction in dialysate sodium without special additional attention to dietary sodium intake appeared not to improve blood pressure control in hypertensive dialysis patients.

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