males and females (please see Table 1, below). Only estimated creatinine clearance (eCrCl) increased in the male group of alcohol users. Thus, to avoid the effects of gender and pre-existing renal disease on eGFR, we further analysed the data from 419 non-diabetic, renal disease-free, alcohol users and compared them with 419 age- and sex-matched non-diabetics, renal disease-free, non-alcohol users as controls. The results were presented in Table 2 of our article, which showed that those with an alcohol habit had a significantly higher smoking rate, blood pressure, serum triglyceride, high-density lipoprotein cholesterol, uric acid, estimated CrCl and GFR values and lower total-cholesterol and low-density lipoprotein cholesterol concentrations than non-drinkers. As we had presented the results in sex- and age-matched groups, we did not show the results of the subgroup analysis of Table 1 in the article and were thus questioned by Mr Lhotta.

The other comment raised is that the albumin and urea data were not reported. The albumin level in 693 non-alcohol users (43.1 ± 2.7 g/L), 436 alcohol users (43.2 ± 3.2 g/L), and 127 ex-alcohol users (43.2 ± 3.2 g/L) were not significantly different among the groups, while blood urea nitrogen level in the 436 alcohol users (5.81 ± 1.99 m mol/L) was significantly lower (P = 0.017 by ANOVA) when compared to those of non-alcohol users (6.10 ± 2.57 mmol/L) and ex-alcohol users (6.21 ± 2.64 m mol/L). Both variables were used in the calculation of eGFR but not in the regression analysis. Thus, we did not present both data in the article.

Conflict of interest statement. None declared.

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doi:10.1093/ndt/gfi241

Advance Access publication 7 December 2005

Icodextrin and haemodynamics

Sir,
In their study comparing the acute haemodynamic changes associated with a single peritoneal dialysis exchange of 1.36 and 3.86% dextrose and icodextrin peritoneal dialysate, Selby et al. [1] are surely missing the most likely reason for the differences they describe.

The 3.86% dextrose exchange was associated with better maintenance of cardiac output for equivalent change in total peripheral resistance. In turn, this must translate to higher mean arterial pressure. The most likely explanation is the greater ultrafiltration achieved with 3.86% dextrose compared with the other dialysates. The elderly patients they studied with the co-morbidities described make it highly likely that these patients would suffer from incipient cardiac failure. In that setting, the cardiac ejection fraction improves in response to ultrafiltration.

What Selby et al. describe is not an adverse haemodynamic response to hypertonic dextrose but rather evidence of an appropriate inotropic response to reduced cardiac pre-load. The authors provide no evidence for a superior haemodynamic response comparing icodextrin and hypertonic dextrose.

Conflict of interest statement. Dr H. Feidhlim Woods is an employee of Fresenius Medical Care.

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1. Selby NM, Fonsexa S, Hulme L, Fluck RJ, Taal MW, McIntyre CW. Hypertonic glucose-based peritoneal dialysate is associated with higher blood pressure and adverse haemodynamics as compared with icodextrin. Nephrol Dial Transplant 2005; 20: 1848–1853
doi:10.1093/ndt/gfi261

Advance Access publication 7 December 2005

Reply

Sir,
The main contention in your letter, concerning the explanation of the observed haemodynamic differences between differing peritoneal dialysis solutions, is unfortunately not in keeping with the data contained within the article. The key issue is that the higher ultrafiltration seen with 3.86% glucose results in ionotropic changes over that achieved with icodextrin, and explains the observed differences. The ultrafiltration volume was indeed larger in the 3.86% glucose phase. However, given that the icodextrin phase resulted in a larger ultrafiltration volume than the 1.36% glucose phase, but had identical haemodynamic response to the lower glucose solution, it is hard to agree with the proposed mechanisms. Furthermore, the authors have difficulty in agreeing with the claim that as all the patients in the study were elderly they would have suffered from significant heart failure. These patients were clinically at a desired weight with no evidence of congestive cardiac failure. Even given that some of the patients may have suffered from a degree of occult heart failure, it does not seem reasonable that in a patient group who would have been heterogeneous in this respect, we would have seen the observed homogeneity of response. The suggestion that increased ultrafiltration may have reduced pre-load is not possible to determine from this study, but it could be readily argued that such changes would lead to increased pre-load. It is becoming increasingly well recognized that patients receiving dialysis are characterized by profound neuroendocrine, autonomic, vascular structural and myocardial functional abnormalities. This makes the extrapolation of the principles and scale of cardiovascular response in a normal population somewhat vexed in this profoundly physiologically dysregulated group of patients.

Conflict of interest statement. CWM has received an unrestricted educational grant from Baktes Healthcare, Brussels.

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