So, overweight is associated with better survival in dialysis patients!

Sir,
The recent article by Leavey et al. [1] in Nephrology Dialysis Transplantation is based on a well-conducted analysis of a large pool of prospective dialysis data. Their main finding that overweight is associated with better survival is of considerable interest to us because this confirms an earlier similar observation by us [2]. Our original finding of better survival in overweight dialysis patients was somewhat heterodoxical, since overweight and obesity in the general population are usually associated with increased, and not decreased, morbidity and mortality. Our paper, published in Kidney International, was accompanied by an editorial comment by Drs Lowrie and Hakim, titled ‘Obesity and
mortality in ESRD: is it good to be fat?" [3]. In our study, we found not only better survival but also reduced hospitalization in overweight haemodialysis patients. We also attempted to examine the mechanism behind the improved survival of overweight patients, and found evidence that overweight patients had better nutritional status. Our study was based on a cross-sectional analysis that was confined predominantly to African Americans, and the strength of Leavey et al.'s study [1] is that it was conducted in a larger pool of patients of multi-racial and multi-national origin, who were part of the prospective Dialysis Outcomes and Practice Patterns Study (DOPPS).

The mechanism or mechanisms by which overweight may confer a survival advantage is presently uncertain. Better nutrition might be one possible reason, and we have previously postulated that excess fat in overweight and obese patients may provide a ready reserve of calories, should these patients become acutely ill [2]. Alternatively, being able to maintain or gain weight on dialysis might be a marker for patients who do not suffer from other or underlying systemic diseases or who do not have evidence for the ineffable but widely quoted ‘systemic inflammation’ entity. Now that it is reasonably well demonstrated that higher body weight accompanies better survival in dialysis patients, interventional studies such as higher calorie intake to maintain a higher end of normal BMI may be appropriate to verify whether the paradoxical ‘overweight-survival’ phenomenon in dialysis patients is merely an association or a cause and effect relationship. This phenomenon of overweight-survival in dialysis patients may be paradoxical, but not unique, however. Earlier studies from others and ourselves [4–7] have shown that conventional risk factors, such as high cholesterol and higher blood pressure, may indeed be paradoxically associated with better survival in dialysis patients. Such a paradox is probably best explained on the basis of increased nutrition, which unfortunately may add to some of the conventional risk factors such as overweight, hypertension and hyperlipidaemia. In the uraemic milieu, it seems, increased nutritional intake may be more crucial to survival (whether this is true over 10 or 15 years is not known) and may offset the negative effects of the risk factors that may accompany increased nutritional intake [4]. Logically, increased nutrition with tighter control of the risk factors should provide the best survival outcome for these patients.

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1 Leavey SF, McCullough K, Hecking E, Goodkin D, Port FK, Young EW. Body mass index and mortality in ‘healthier’ as compared with ‘sicker’ haemodialysis patients: results from the Dialysis Outcomes and Practice Patterns Study (DOPPS). *Nephrol Dial Transplant* 2001; 16: 2386–2394
4 Fleischmann EH, Bower JD, Salahudeen AK. Risk factor paradox in hemodialysis: better nutrition as a partial explanation. *Asaio J* 2001; 47: 74–81