Letter and Replies

Advance Access publication 17 March 2006

The obesity paradox as it relates to survival and hypertension in dialysis patients

Sir,

Narkiewicz’s [1] recent editorial on obesity and hypertension in the journal was timely and of interest. I have two comments and two questions.

The study by Fleischmann et al. [2] and all subsequent studies have shown that obesity is only associated with better survival on haemodialysis, rather than causal to enhanced survival. This distinction is critical. The second comment is that the original and several subsequent works have demonstrated that obese patients tend to have better nutritional parameters [2,3], suggesting that better nutrition is probably the proximate mechanism for better survival rather than obesity per se.

Indeed, Narkiewicz [1] is correct in pointing out that data so far does not support any better survival in obese patients on peritoneal dialysis. The curious question, therefore, has to be why. The answer may unlock the mystery-mechanism of obesity survival. Is it the high caloric intake imposed by peritoneal dialysis, and following the same line of thinking, can high caloric intake by lean patients on haemodialysis afford better survival? The second question, since there is a paradoxical association between obesity and survival in dialysis patients, is there any data to suggest that obesity is indeed associated with hypertension in patients on haemodialysis? Our study suggests that obese patients on haemodialysis may paradoxically have less severe hypertension than their lean counterparts [4].

Conflict of interest statement. None declared.

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1. Narkiewicz K. Obesity and hypertension – the issue is more complex than we thought. Nephrol Dial Transplant 2006; 21: 264–267

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Reply

Sir,

I appreciate Dr Salahudeen’s interest in my editorial. He raises several insightful points regarding the complex interaction between obesity, hypertension and chronic renal failure. He is correct in pointing out that the causal nature of the relationship between obesity and better survival on haemodialysis has not been established. Indeed, this relationship might be confounded by several factors such as the effects of nutritional status, caloric intake, weight loss, neurohumoral activation, inflammation, co-existing diseases (including congestive heart failure) and drug therapy. These confounders may also affect the relationship between obesity and hypertension in end-stage renal failure. As suggested by Salahudeen et al. [1] in one of their earlier studies, weight loss and malnutrition through pro-inflammatory and anti-endothelial mechanisms may contribute to more severe hypertension in lean patients on haemodialysis. Therefore, the paradigm of a positive relationship between obesity and blood pressure holds true in normal humans, but it cannot be extrapolated to include such pathological conditions as end-stage renal failure. There is a clear need for further prospective studies analysing the contribution of weight change, nutritional status and neurohumoral abnormalities to hypertension and to survival in patients with renal failure. This may be of potential relevance to devising future treatment strategies for chronic renal failure and its cardiovascular consequences.

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Mannose-binding lectin level and polymorphism in patients on long-term peritoneal dialysis—level of serum mannose binding lectin with end-stage renal disease

Sir,

In their interesting article, Lam et al. [1] reported that dialysis patients had a significantly lower serum level of mannose binding lectin (MBL) than healthy individuals. This differs from our results [2] in that the mean level of serum MBL was significantly higher in pre-haemodialysis and haemodialysis