preferential use of sevelamer in dialysis patients cannot be justified.

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Body mass index and survival differences in dialysis patients

To the Editor: Stack et al [1] have raised an interesting question whether obesity may confer a survival advantage or disadvantage in specific dialysis populations. The authors have demonstrated that, unlike peritoneal dialysis patients (PD), an improved survival is associated with a greater body mass index (BMI) in hemodialysis patients (HD) [1]. We wish to offer some supplementary reflections and suggestions regarding this issue, based on our experience and practice.

In the general population, an increased BMI is associated with higher mortality; more properly, total mortality is a linear increasing function of high fat mass (FM) and low fat free mass (FFM) [2]. On the contrary, an inverse BMI-mortality relationship has been reported in HD [3], although the protective effect of high BMI is limited to patients with normal or high muscle mass [4]. On the other hand, a loss of FFM may be undetected if merely BMI is considered. We observed, in fact, that HD patients with higher BMI, unlike healthy subjects, show a lower FFM associated with an increased FM [5] (Table 1).

In PD, peritoneal protein loss, appetite reduction, and presence of peritonitis may often induce a higher prevalence of malnutrition, as compared with HD, and a more significant loss of FFM. A frequent increase of FM, secondary to glucose gain, may nevertheless replace the reduced FFM without BMI modification. These changes in body composition, and a more unfavorable lipid profile, may contribute to the increased mortality in PD patients with higher BMI.

In conclusion, because BMI cannot differentiate whether weight change is due to variation of FM or FFM, BMI must be considered only a limitative predictive factor for survival analysis in dialysis patients; easy and noninvasive bodycomposition methods (such as skin-fold measurements and bioelectrical impedance analysis) are recommended for a more accurate evaluation of the relationship between BMI and mortality.

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