

LETTERS TO THE EDITOR

Body weight is a fluctuating parameter in hemodialysis patients

To the Editor: Recently, in *Kidney International* the relationship between overweight and mortality in hemodialysis has been matter of an intriguing debate. Fleischer-mann et al [1] showed that higher than “normal” body mass index is associated with a reduced risk of death. Hakim and Lowrie [2], however, questioned the definition of “normal weight” in diverse populations. Indeed, Kopple et al [3], by comparing patients with age, sex, height and racial matched controls, demonstrated a reduced risk of death during one-year hemodialysis in high body weight-for-height patients. Evidence of either the reduction of weight in most patients [3], or the inverse relationship between BMI and duration of dialysis was shown [1], such findings suggesting a variation of body weight in the long-run. These studies, however, did not evaluate the changes of body weight. In contrast, Kaizu et al [4] have shown that during long-term hemodialysis body weight progressively declines and higher BMI is related with higher risk of death. Therefore, the behavior of body weight and its role on patient outcome in hemodialysis need to be further clarified, especially with regard to body weight changes over time.

We registered monthly the dry weight in 31 Caucasian patients, from the first hemodialysis up to 5 years. During the observation, higher-weight patients (BMI, 26.1 ± 0.6), with respect to lower-weight patients (BMI, 20.8 ± 0.4),

underwent to a greater weight decline (-5.5% vs. -1.2% , $P < 0.05$). Nevertheless, the magnitude of weight fluctuations during follow-up (Fig. 1) was $13 \pm 2\%$ in higher-weight and $13 \pm 2\%$ in lower-weight patients. Also, the number of acute weight changes was similar in both groups. These findings indicate that during long term, body weight is extremely fluctuating in all hemodialysis patients.

Therefore, a single measure of body weight in dialysis may be unreliable and not thoroughly predictive of patient survival. When evaluating such a critical parameter of healthy status, serial measurements of body weight over time should be considered.

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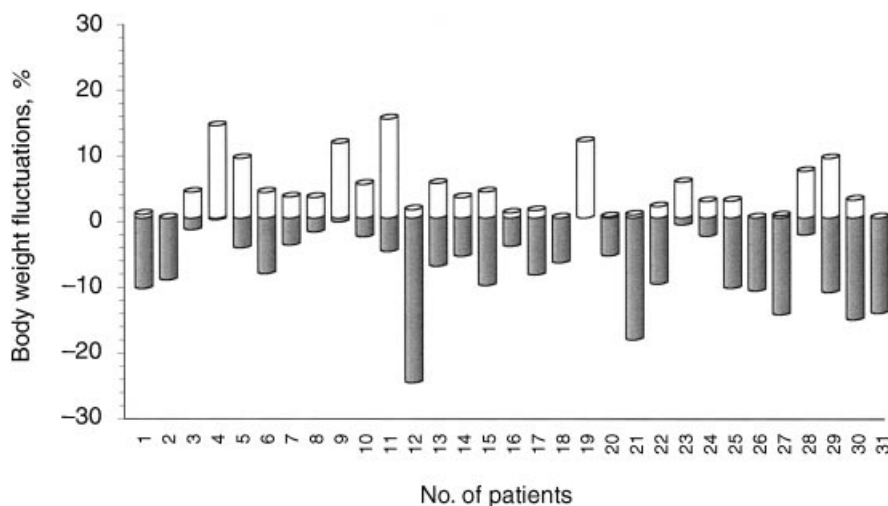


Fig. 1. Range of changes of body weight over the five-year follow-up of each dialyzed.