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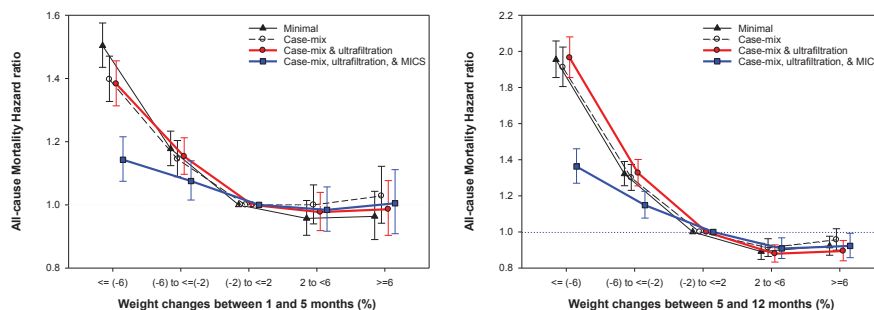
ASSOCIATION OF BODY WEIGHT CHANGES WITH MORTALITY IN INCIDENT HEMODIALYSIS PATIENTS.

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Body weights in patients undergoing maintenance hemodialysis (HD) are not stationary but dynamic over time. Accordingly, we recently observed that patients undergo rapid weight losses in the first 5 months of starting dialysis, and reach stabilized weights at 14 months. Therefore, we undertook this study to test the hypothesis that the effects of body weight changes between 1-5 months versus between 5-12 months on subsequent mortality may differ.

In a US cohort of 58,106 HD patients who initiated dialysis in calendar years 2007-2011 and who survived the 1 year of HD, we examined the association of percent post-dialysis weight changes over first 1 year of starting dialysis with all-cause mortality using multivariate Cox regression models.

Compared to reference group (-2 to 2% of weight change during first 5 months), a death hazard ratios (HR) of patients with -6 to -2% and more than -6% weight changes were 1.08 (95% CI: 1.02-1.14) and 1.14 (1.07-1.22), respectively. Each 4% increase of body weight between 5-12 months was associated with a death HR of 0.92 (0.90-0.93), which association was even stronger compared to HR of 0.96 (0.95-0.98) over first 5 months. Moreover, a death HRs of patients with 2 to 6% and more than 6% weight gains were 0.91(0.85-0.97) and 0.92 (0.86-0.99), respectively.



In conclusion, incrementally higher drops in post-dialysis dry weight during the first 12 months of dialysis therapy is associated with higher death risk, whereas weight gain is associated with greater survival during the 5th to 12th month but not in the first 5 months of dialysis therapy.