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Skip the Strict Salt and Fluid Restriction for Hospitalized Patients with Heart Failure

Clinical Question

Does fluid and sodium restriction increase weight loss and improve clinical stability in hospitalized patients with acute decompensated heart failure?

Bottom Line

This study suggests that a low-sodium and fluid-restricted diet, compared with a non-restricted diet, for patients hospitalized with acute decompensated heart failure does not expedite weight loss or decrease congestion. Patients placed on such diets are, as expected, significantly thirstier than their standard-diet counterparts (and may complain more about the bad hospital food). (Level of Evidence = 1b)

Synopsis

Many patients hospitalized for acute decompensated systolic heart failure are placed on fluid and sodium restriction, but it is unclear whether this practice is beneficial. In this small study, investigators randomized these patients to a fluid-restricted and sodium-restricted diet or a standard hospital diet. Patients in the intervention group (n = 38) had a fluid intake of 800 mL per day and a sodium intake of 800 mg per day until discharge or hospital day 7, whichever came

first. Patients in the control group (n = 37) received liberal fluids and sodium (at least 2.5 L per day and 3 to 5 g per day, respectively). Baseline characteristics were similar in the two groups. Most of the patients were white men, the mean ejection fraction in the entire group was 26%, and almost all patients were classified as New York Heart Association class III or IV. Three days after randomization, there were no significant differences detected in weight loss, clinical stability as assessed by the clinical congestion score, rates of intravenous diuretic or vasodilator use, mean diuretic doses required, or time to transition from intravenous to oral diuretic therapy. Patients in both groups lost approximately 4.5 kg (10 lb) of body weight during this time. The restricted group had significantly greater perceived thirst than the control group. At 30-day follow-up, patients in the restricted group were noted to be slightly more congested, with a clinical congestion score 2.4 points higher than the control group, but there was no difference in 30-day readmission rates between the groups. Given the small sample size, this study was likely underpowered to detect such a difference if it exists.

Study design: Randomized controlled trial (double-blinded)

Funding source: Foundation

Allocation: Concealed

Setting: Inpatient (any location)

Reference: Aliti GB, Rabelo ER, Clausell N, Rohde LE, Biolo A, Beck-da-Silva L. Aggressive fluid and sodium restriction in acute decompensated heart failure: a randomized clinical trial. *JAMA Intern Med.* 2013;173(12):1058-1064.

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