

HEART FAILURE

Benefits of dietary advice in patients with HFpSF

Patients who have heart failure with preserved systolic function (HFpSF) are less likely to receive guideline-based hospital discharge instructions—incorporating advice on diet—than are those with heart failure and systolic dysfunction. However, when dietary recommendations to reduce sodium intake are provided, they result in improvements in short-term outcome among patients with HFpSF. These findings have been reported by investigators working on the Mid-Michigan GAP-HF (Guidelines Applied in Practice - Heart Failure) study. This intervention aimed to increase adherence to ACC/AHA heart failure guidelines at eight community hospitals in Michigan, USA. Six additional hospital in the same area, which did not use the intervention, were selected as controls.

HFpSF is a serious, but under-recognized problem affecting over half the heart failure population over the age of 65 years, “yet there are no specific evidence-based strategies to manage them” says Scott Hummel who is one of the GAP-HF researchers. “I think the major reason for this is that our understanding of HFpSF pathophysiology is incomplete” he continues. Much of our knowledge about the mechanisms involved in HFpSF comes from studies of salt-sensitive, hypertensive rats. In these models, high sodium intake induces vascular stiffening, heart failure, and target-organ damage. “The vast majority of patients with HFpSF also have hypertension” explains Dr Hummel “their demographics exactly match those of people with salt-sensitive hypertension



... [and] we have proposed that salt-sensitive hypertension is a major risk factor for HFpSF.”

The ACC/AHA guideline-based discharge instructions recommended in the GAP-HF study included a schedule of follow-up appointments, a medication list, a recommended diet and activity plan, and instructions on weight monitoring and what to do if symptoms worsen. A total of 1,027 patients with heart failure, who were insured through Medicare and Medicaid and discharged from these intervention and control hospitals, were followed-up for 6 months.

Guideline-based discharge instructions were given to just 33% of the 443 patients with HFpSF compared with 43% of the 584 patients with systolic dysfunction. Furthermore, patients with HFpSF were significantly less likely to be advised to reduce their sodium intake than were those with systolic dysfunction. At 30 days after discharge, 21% of patients with HFpSF had died or been rehospitalized;

only 31% of these individuals had received recommendations on lowering sodium intake. By contrast, 46% of patients with HFpSF who had not died or been readmitted had received this dietary advice. The use of instructions to reduce salt intake significantly predicted 30-day death or hospital readmission (odds ratio 0.53, 95% CI 0.33–0.87, $P=0.01$) even when adjusted for other factors.

The GAP-HF investigators are currently looking into the effects of the DASH (Dietary Approaches to Stop Hypertension) diet among patients with HFpSF. “We believe that dietary modification could be one of the most powerful (and patient-empowering) strategies that we have for this condition” concludes Dr Hummel.

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