Assessing the response to treatment remains a difficult challenge when caring for patients with heart failure. Targets of therapy are usually the resolution of subjective complaints, such as orthopnea and dyspnea on exertion, in combination with observed signs such as jugular venous distension, rales, and edema, which are all fraught with measurement variability. Searching for an adequate surrogate for the pulmonary wedge pressure has remained elusive from the practical standpoint. Following the response of symptoms and signs yielded results similar to following invasively measured filling pressures in the acute decompensated heart failure setting in hospital. However, the benefit of in-hospital therapy often wanes after discharge to the outpatient setting, where the optimal strategy to guide treatment of filling pressures has not been established.

Brain natriuretic peptide (BNP) is a cardiac neurohormone biomarker that is secreted from the ventricles when they are under increased pressure and stress. It has been shown to be useful to diagnose heart failure in the emergency department setting and to identify patients at high risk for early events. According to the 2005 American College of Cardiology/American Heart American Guideline Update for the Diagnosis and Management of Chronic Heart Failure, the value of serial measurements of BNP or N-terminal prohormone BNP to guide therapy for patients with known heart failure is a class IIB recommendation (level of evidence C). Small trials have suggested outcome utility in targeting treatment to BNP or N-terminal prohormone BNP levels compared with a clinically driven strategy, but in these trials, most of the effect seemed to be gained by more aggressive use of angiotensin-converting enzyme inhibitors and β-blockers, which perhaps should have been optimized anyway, with no difference in diuretic dosing. In light of the lack of definitive randomized controlled trials, how would you recommend using serial measurement BNP or N-terminal prohormone in chronic heart failure management?

None.

Disclosures

References


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