Overview of vasopressin receptor antagonists in heart failure resulting in hospitalization.

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Abstract

Patients with worsening heart failure (HF) requiring hospitalization commonly have a history of progressive fluid retention, decreased renal function, and hyponatremia. For these patients, diuretics have traditionally been the mainstay of treatment, but they are associated with electrolyte abnormalities and impaired renal function. Previous studies have shown that levels of the endogenous arginine vasopressin (AVP) hormone are elevated in patients with HF and may be the contributing factor to fluid retention and hyponatremia, and probably progression of HF. Vasopressin antagonists represent a unique class of therapeutic agents because of their potential role in both the short- and long-term treatment of patients hospitalized with worsening HF. As “aquaretics,” AVP antagonists offer the possibility of added efficacy in relieving congestion and improving symptoms with minimal adverse effects in combination with standard medical therapy. Some AVP receptor antagonists have shown promising results in animal studies and small-scale clinical trials. The purpose of this review was to update the current status of studies with the available AVP antagonists.

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