Nesiritide: No Benefit Seen in Stable HF Patients

BY DAMIAN McNAMARA
Miami Bureau

BOCA RATON, FLA. — The brain natriuretic peptide, nesiritide, which is used to treat acute heart failure symptoms, did not facilitate diuresis or protect renal function in a small study of stable hospitalized patients.

Many clinicians believe that nesiritide (Natrecor, Scios Inc.) facilitates furosemide diuresis and prevents renal dysfunction, Dr. Margaret M. Redfield, said in an interview. However, a recent metaanalysis indicated that the agent might actually increase the risk of renal dysfunction (Circulation 2005;111:1487-91).

In a poster presented at the annual meeting of the Heart Failure Society of America, Dr. Redfield and associates studied 65 patients hospitalized for decompensated heart failure and who were treated with a standard dose of nesiritide for relief of their heart failure symptoms. They were randomized to nesiritide as a 2-mcg/kg bolus at admission and a 0.01-mcg/kg per minute infusion at 48 hours (34 patients) or to standard therapy (31 patients).

The participants also received 40-mg b.i.d. intravenous furosemide if they had mild renal dysfunction at baseline, defined as a creatinine clearance of 40-60 mL/min. They received 80-mg b.i.d. intravenous furosemide if they had moderate renal dysfunction, or a creatinine clearance of 20-39 mL/min, said Dr. Redfield, professor of medicine, Mayo Clinic College of Medicine, Rochester, Minn.

Mean baseline creatinine was 1.8 mg/dL in the nesiritide group and 1.7 mg/dL in the standard therapy group; by 48 hours, the mean changes were increases of 0.12 mg/dL and 0.07 mg/dL, respectively. Mean baseline brain natriuretic peptide level was 640 pg/mL for the nesiritide group and 538 pg/mL for the standard therapy group; by 48 hours, the mean changes were a 474-pg/mL increase in the nesiritide group and a 59-pg/mL decrease in the control group. Total furosemide use was 272 mg in the nesiritide group and 255 mg in the standard treatment group at 48 hours.

"Nesiritide causes no harm, but has no significant benefit," Dr. Redfield said. "Nesiritide did not enhance the response to furosemide."

Systolic blood pressure was lower in the nesiritide group at 24 hours, but not significantly different between groups by 48 hours. ■

Resynch HF Patients With Atrial Fibrillation

BOCA RATON, FLA. — Heart failure patients with atrial fibrillation who receive cardiac resynchronization devices experience benefits similar to those in patients without the condition, according to data presented at the annual meeting of the Heart Failure Society of America.

Major cardiac resynchronization therapy trials typically exclude patients with atrial fibrillation. However, the diagnosis is common in patients with heart failure.

"It's an important question to ask—a lot of our patients have atrial fibrillation. We don't know if they benefit from resynchronization," Dr. Jooyoung Julia Shin, said in an interview during a poster session.

Dr. Shin and her associates compared New York Heart Association (NYHA) classifications before and 6 months after device placement for patients with and without atrial fibrillation. They assessed data for 1,017 people with heart failure who were enrolled in the InSync Registry and InSync ICD (Implantable Cardioverter Defibrillator) Registry (Medtronic Inc.). Of these registrants, 389 (38%) with an NYHA classification at 6 months had a history of atrial fibrillation before implantation.

Such patients were not included in the clinical trials, said Dr. Shin, a researcher in the division of cardiology at Emory University, Atlanta. The study's principal investigator was Dr. Andrew L. Smith.

The overall mean NYHA classification was 3.0 before device implantation and 2.3 at 6 months. At 6 months, the mean improvement in NYHA classification was the same in both groups: 59%. This indicates that patients with a history of atrial fibrillation can benefit from cardiac resynchronization therapy, Dr. Shin said.

The researchers plan to continue following participants up to 3 years.

—Damian McNamara