Drugs, Devices Differ for Two Heart Failure Types

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BALTIMORE — With at least six drugs and several devices to choose from for heart failure, it's important to approach asymptomatic and symptomatic patients differently, Dr. Edward Kasper said at a cardiovascular conference sponsored by Johns Hopkins University.

Dr. Kasper bases his treatment decisions on the 2005 guidelines from the American College of Cardiology and the American Heart Association for the diagnosis and management of chronic heart failure in adults (J. Am. Coll. Cardiol. 2005;46:e1-82).

For asymptomatic patients, the evidence is strong that ACE inhibitors reduce mortality, said Dr. Kasper, chief of cardiology at Johns Hopkins Bayview Medical Center, Baltimore. The best data come from the Studies of Left Ventricular Dysfunction (SOLVD) trial (N. Engl. J. Med. 1992; 327:685-91) and from a separate long-term follow-up of the patients that found that after 12 years, 50.9% of those taking enalapril had died, versus 56.4% of those taking placebo (Lancet 2003; 361:1843-8).

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The data are not as clear for angiotensin receptor blockers or β-blockers in asymptomatic patients. Post-MI, both β-blockers and ACE inhibitors reduce mortality, Dr. Kasper said.

For primary prevention in asymptomatic patients with ischemic cardiomyopathy and an ejection fraction of less than 30%, implantable cardioverter defibrillators (ICDs) are the best choice, as shown in the Multicenter Automatic Defibrillator Implantation Trial II (MADIT-II). Patients were randomly assigned to a defibrillator or conventional medical therapy. The death rate was substantially lower for the ICD group—14%, compared with 20% for medical therapy. The results do not apply to nonischemic myopathy, he said.

For symptomatic patients, the first line is diuretics and restricted salt intake. β-Blockers and ACE inhibitors are also employed. Dr. Kasper cautioned against using NSAIDs for gout, noting that the drugs can worsen the heart failure. Most antiarrhythmics are contraindicated for the same reasons, Dr. Kasper said.

The main data backing ACE inhibitors in symptomatic patients come from the treatment arm of the SOLVD trial, and Cooperative North Scandinavian Enalapril Survival Study (CONSENSUS I) (N. Engl. J. Med. 1987;316:1429-35). Mortality was substantially reduced in both. The exact ACE inhibitor is not important, Dr. Kasper said. But the choice of β-blocker is important, he said. A study in 2003 in 3,029 patients with New York Heart Association class II-IV heart failure and an ejection fraction of less than 35% were randomized to 25 mg of carvedilol twice daily or 50 mg of metoprolol tartrate (Lopressor) twice daily. With a mean follow-up of 58 months, the all-cause mortality was 34% in the carvedilol group, compared with 40% in the metoprolol group (Lancet 2003;362:7-13).

Dr. Kasper said he generally uses carvedilol in new patients and either carvedilol or metoprolol succinate (Toprol XL) in established patients. Both drugs have been approved for the treatment of chronic heart failure.

For ICDs, the guidelines suggest implantation for class II or III patients who have an ejection fraction of less than 30%; patients with ischemic cardiomyopathy should be at least 40 days post MI. The primary data supporting a reduction in mortality come from the Sudden Cardiac Death in Heart Failure Trial (SCD-HeFT) (N. Engl. J. Med. 2005;352:225-37). Implant candidates should have a life expectancy of at least a year, Dr. Kasper said.

Pacemakers should be considered in class III or IV patients who have an ejection fraction of less than 35% and a history of hospitalization or medical therapy, he said. The Comparison of Medical Therapy, Pacing, and Defibrillation in Heart Failure (COMPANION) study showed that biventricular stimulation with or without an ICD reduced the risk of death and hospitalization (N. Engl. J. Med. 2004;350:2140-50). ■