Testosterone supplements may help heart failure patients
17 April 2012

Testosterone supplements helped heart failure patients breathe better and exercise more, according to research in *Circulation Heart Failure*, an American Heart Association journal.

Researchers analyzed four randomized clinical trials of patients with moderate to severe chronic heart failure. Patients were given commercial testosterone supplements by injection, patch or gel.

Based on the analysis of these studies, those who received supplemental testosterone scored 50 percent better in a six-minute walking test than those receiving placebo.

Also, in two of the studies, the severity of heart failure as measured by the New York Heart Association classification system improved one to two grades in 35 percent of treated patients compared to 9.8 percent of those who didn't receive the supplements. Researchers noted gains in muscle and skeletal endurance that appeared quickly and lasted for a least one year.

"The improvement in exercise capacity was consistent across all of the studies," said Justin A. Ezekowitz, M.D., M.Sc., study author and assistant professor and director of the Heart Function Clinic at the University of Alberta in Edmonton, Canada. "Compared to patients in placebo groups, the differences were striking."

If the findings are confirmed in larger clinical trials, testosterone therapy could be one of the first heart failure therapies targeting the peripheral (skeletal) muscle rather than the cardiac muscle, he said.

The studies included 198 patients, 84 percent men, averaging 67 years of age. One study exclusively in women who were taking lower doses of testosterone than men, found similar improvements.

No significant adverse events were reported, including treatment- or exercise-related cardiovascular events, and there was no increase in prostate cancer or abnormal prostate health parameters in the men.

While the results are encouraging, larger studies are needed as well as studies of the various testosterone delivery methods, Ezekowitz said. "We don't want patients and their loved ones rushing to buy testosterone supplements online, or physicians to misinterpret the findings. First the results need to be corroborated in large clinical trials."

Provided by American Heart Association

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