

HEART FAILURE

Advanced age should not be a contraindication for cardiac resynchronization therapy

Cardiac resynchronization therapy (CRT) is recommended in international guidelines for the treatment of patients with advanced chronic heart failure (CHF) and systolic dysfunction. However, the majority of clinical trial data upon which this recommendation is based come from patients aged <70 years—considerably younger than the ‘real-world’ population of patients with CHF. Wilfried Mullens and colleagues have now shown, in a single center, retrospective study, that patients derive benefit from CRT regardless of age. These findings “should encourage physicians to implant even patients at advanced age with CRT,” says Dr Mullens.

Biventricular pacing in CRT recoordinates asynchronous contraction of the ventricles, promoting reverse remodeling and decreasing the risk of ventricular arrhythmias. However, physicians might be reluctant to implant a CRT device into elderly patients, owing to perceived lack of benefit,

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increased procedural risk, or comorbidity. Mullens *et al.* collected data from patients aged ≥ 70 years who were treated at their dedicated CRT clinic in Genk, Belgium. In doing so, they hope to elucidate the actual risks and benefits of CRT in elderly people in real clinical practice.

Between October 2008 and June 2011, 220 patients received a CRT device at the Genk clinic. The majority of these individuals were elderly (age ≥ 80 years, $n = 49$; age 70–79 years, $n = 95$; age <70 years, $n = 76$). All patients had a left ventricular (LV) ejection fraction $\leq 35\%$, QRS duration > 120 ms, were NYHA class III or IV, and were receiving optimal medical therapy. Baseline ventricular dimensions (LV end-diastolic and end-systolic diameters) were similar across groups. Patients aged ≥ 70 years were more

likely to have CHF of ischemic etiology, and to have worse renal function than younger patients. Medication use also differed between age groups.

After 6 months, LV reverse remodeling (measured by change in LV end-diastolic and end-systolic diameters), improvement in NYHA functional class, as well as time to all-cause death or CHF-related hospitalization were similar across age groups. The rate of complications was not significantly higher among elderly patients than in those aged <70 years. In time, the investigators hope to report longer follow-up data for this population. However, they believe that these results support their theory that “age should not be considered a contraindication for CRT”.

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Original article Verbrugge, F. H. *et al.* Response to cardiac resynchronization therapy in elderly patients (≥ 70 years) and octogenarians. *Eur. J. Heart Fail.* doi:10.1093/eurjhf/hfs151