Cardiac Resynchronization Therapy in Elderly Patients with Heart Failure: The InSync Italian Registry

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Background: Heart failure (HF) in elderly population is associated with polypharmacy and recurrent hospitalizations. Cardiac resynchronization therapy (CRT) has been demonstrated to be effective in treating pts with drug refractory HF. The InSync Italian Registry is a prospective and non-randomized study to monitor CRT. The aim of our study was to assess the efficacy of CRT in elderly HF patients (pts). Methods: 390 pts with advanced HF (NYHA class 3-4), ejection fraction <30% were divided into four age-ranked groups A (80 yrs).

Results: 39 pts (mean age = 53 ± 8 yrs) were in group A, 110 (63 ± 3 yrs) in group B, 130 (74 ± 3 yrs) in group C (62 ± 2 yrs) in group D. The four groups presented baseline differences as far as female percentage (A=9%, B=15%, C=20%, D=33%), D vs A p<0.05, HF etiology different from idiopathic and ischemic (A=20%, B=13%, C=16%, D=35%), D vs B and C p<0.05. No significant differences were observed in HF symptom duration (A=49±55 mos, B=39±45 mos, C=42±47 mos, D=22±24 mos) and history of atrial fibrillation (A=21%, B=35%, C=37%, D=40%). After 6 months follow-up period NYHA class moved from 0.8 to 1.2 to 0.7 to 0.7 in group A (p<0.001), from 3.32±0.11 to 2.16±0.57 in group B (p<0.001), from 3.28±0.45 to 2.04±0.66 in group C (p<0.001) and from 3.29±0.46 to 2.22±0.44 in group D (p<0.001). No significant differences were observed in baseline and 6 months follow up NYHA class between the 4 groups.

Conclusions: CRT induced a similar and significant clinical improvement in all the classes of age considered. Non-compliance and poor recollection of prescribed polypharmacy medication are common in elderly HF patients and associated with higher frequency of hospitalization. Thus CRT could have clinical and cost-effectiveness implications for the treatment of these pts.

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Restrictive Left Ventricular Filling Pattern Predicts Response to Cardiac Resynchronization Therapy: A Role for Diastolic Ventricular Interaction?

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Background: The mechanism of benefit from Cardiac Resynchronization Therapy (CRT) has been attributed to improvements in intraventricular systolic synchrony improvements in Diastolic Ventricular Interaction (DVI), in which left ventricular filling is constrained by the...