Relationship between functional capacity and diastolic function in chronic heart failure patients

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Background Dyspnea is the frequent cause of exercise intolerance and physical inactivity among chronic heart failure patients. Diastolic dysfunction has shown significant correlation with exercise capacity. The aim is to study whether there is interaction between left ventricular diastolic dysfunction and functional capacity in our CHF patients.

Methods 1613 consecutive ambulatory patients with chronic heart failure were enrolled from 2006 to 2013 and registered in the therapeutic unit of chronic heart failure. Clinical, echocardiographic and biological data were investigated. We divided our patients into 2 groups as follow: group 1 with reducing filling pressure (64 years, 67% were male). We analyzed New York heart association (NYHA) status and the 6 minutes’ walk test as follow: underweight (BMI <18.5kg/m², n=35), normal (18.5 ≤BMI<25, n=349), overweight (BMI ≥25, n=101) and obese (BMI ≥30, n=200) and compared the results from their clinical data, laboratory tests and echocardiography. The prevalence of obesity and overweight in CHF were 15 and 29% respectively.

Obese group had a higher prevalence of obesity-related comorbidity (hypertension: p<0.0001, diabetes mellitus: p<0.0001 and dyslipidemia: p<0.0001). Age, ischemic heart disease, stroke attack, stage NYHA, heart rate, hospitalization rate for cardiac decompensation, left right ventricular systolic function did not differ among the groups. However male sex, anemia and diastolic dysfunction were higher in the underweight group than in the other groups (p<0.0001 and p=0.03 respectively).

Conclusion High body mass index (overweight and obesity) was frequent in chronic heart failure and it was not predictor of cardiac decompensations and hospitalizations. Furthermore, lower BMI was associated with diastolic dysfunction.

The author hereby declares no conflict of interest

Impact of body mass index on prognosis in systolic heart failure patients: Moroccan profile

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Background Higher body mass index (BMI) is associated with incident chronic heart failure (CHF) but it is paradoxically associated with better prognosis. The objective of the study was to analyze the relationship between body mass index and HF in a Moroccan profile.

Methods and results We enrolled 685 patients admitted to the Therapeutic Unit of Chronic Heart Failure (TUCHF) from 2006 to 2013 as follow: underweight (BMI <18.5kg/m², n=35), normal (18.5 ≤BMI<25, n=349), overweight (25≤BMI <30, n=200) and obese (BMI ≥30, n=101) and compared the results from their clinical data, laboratory tests and echocardiography. The prevalence of obesity and overweight in CHF were 15 and 29% respectively.

Obese group had a higher prevalence of obesity-related comorbidity (hypertension: p<0.0001, diabetes mellitus: p<0.0001 and dyslipidemia: p<0.0001). Age, ischemic heart disease, stroke attack, stage NYHA, heart rate, hospitalization rate for cardiac decompensation, left right ventricular systolic function did not differ among the groups. However male sex, anemia and diastolic dysfunction were higher in the underweight group than in the other groups (p<0.0001 and p=0.03 respectively).

Conclusion High body mass index (overweight and obesity) was frequent in chronic heart failure and it was not predictor of cardiac decompensations and hospitalizations. Furthermore, lower BMI was associated with diastolic dysfunction.

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