Conclusions These results show that NYHA score and 6 minutes’ walk test are useful to discriminate functional status in obese patients compared to others but unsatisfying because can overestimate severity of obese heart failure patients, the VO2 max is more useful.

The author hereby declares no conflict of interest

0042

Left ventricular reverse remodeling in heart failure: a new obesity paradox?

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Background heart failure with reduced ejection fraction (HF-REF) is associated with left ventricular remodeling in most patients which is grossly documented by LV dilation, and is associated with poor prognosis. Positive or reverse remodeling (RR) was also described but its exact contribution is poorly documented.

Aim To analyze prevalence of RR in a cohort of outpatients with HF-REF and to characterize its determinants and prognostic impact.

Methods inclusion criteria were: available detailed echographic files; beta-blockers ACE-I or ARB introduced before the study; left ventricular EF (LVEF) <0.45 and left ventricular end diastolic dimension >33mm/m² at the first echography; at least one other examination between 3 and 12 months; clinical follow-up of 3 years or more (cardiac death or cardiac transplantation). RR was defined as the combination of a decrease of LV end diastolic diameter >10% and an increase in LVEF >10% (or last EF >0.50) between the two echocardiographies.

Results We included 196 patients between 2008 and 2010. RR was observed in 21 patients (10%). As compared with others patients, RR was associated with significantly higher BMI (27.3 vs 23.5), obesity (28 vs 10%), de novo HF (81 vs 46%) and lower initial LVEF (0.26 vs 0.30). In multivariate regression analysis, de novo HF and obesity were independently predictive of the RR. Over a mean follow-up of 60 months, the rate of death or cardiac transplantation was 4% in RR patients and 14% in the other group (p<0.01). In Cox-regression analysis, independent predictors of prognosis were de novo HF, obesity and RR (p<0.01). After adjustment, RR remains associated with better prognosis (HR 0.22; C.I.95% 0.06-0.95; p=0.04).

Conclusion RR occurs in a small proportion of patients with HF-REF and is related to good prognosis. While de novo HF appears to be the strongest determinant of RR, our results suggest that obesity could be a novel and intriguing player in underlying mechanisms of RR.

The author hereby declares no conflict of interest

0389

Preference for erectile dysfunction treatments in patients with chronic heart failure

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Objective To evaluate variations in sexual and erectile function in subjects with chronic heart failure (CHF) after optimization of CHF treatment.

Methods 160 patients men (age range 40-76 years; mean age 60 years), with CHF and erectile dysfunction (ED), were divided two groups, one under symptomatic treatment of ED; were asked all of them to complete the International Index of Erectile Function IIEF-5 before (at baseline) and 3 months after optimization of treatment of CHF.

Results Among 160 patients studied, 47.3% have an optimal treatment of CHF versus 52.7% have not, more than 60% of patients with optimal treatment of CHF (and without symptomatic treatment of ED) showed significant improvements on the 5 domains of the IIEF-5, compared to 25% of patients without optimal treatment and under symptomatic treatment of ED (the difference was statistically significant).

Conclusion the results of this study support that optimal treatment of CHF improves erectile function in patient with erectile dysfunction secondary to CHF better than symptomatic treatment alone.

The author hereby declares no conflict of interest

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Cardiac involvement in hemoglobin SC disease compared to homozygous sickle-cell anemia

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Background Hemoglobin SC (HbSC) disease and homozygous sickle-cell anemia (SCA) are the most frequent genotypes (accounting for respectively 25% and 70%) of sickle-cell disease. Although the SCA cardiac involvement was well studied, the cardiac remodeling associated to HbSC has never been specifically investigated. The aim of the study was to describe the HbSC cardiac remodeling versus SCA.

Method Using a case-control design, 61 HbSC (mean age 31±3.10, 36 women) patients underwent a comprehensive echocardiography and were compared to 61 SCA patients in stable conditions. LV end diastolic volume index and LV ejection fraction were measured by Simpson method. LV mass index, left atrial volume index, septal E/e’ ratio, peak tricuspid regurgitation velocity (TRV) and cardiac index were also measured as recommended. All the parameters were the average of three measures.

Results Both LV morphological and diastolic functional parameters differed dramatically between the two groups of patients (table, mean±SD). Moreover, the pulmonary artery systolic pressure as estimated by TRV was lower in HbSC patients.

Conclusions Cardiac remodeling is very different in HbSC compared to SCA. Clinical interpretation of echocardiography data should be adjusted to each variant of the disease. Moreover, this study is further evidence that the both genotypes of sickle-cell disease have different organ involvements and should not be pooled in clinical studies. Specific guidelines for follow up of HbSC patients should be established.

Abstract 0147 – Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>SCA patients (n=61)</th>
<th>HbSC patients (n=61)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart rate (beats/min)</td>
<td>70±11</td>
<td>72±10</td>
<td>0.26</td>
</tr>
<tr>
<td>LV mass index (g/m²)</td>
<td>105±26</td>
<td>77±16</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>LV end diastolic volume index (ml/m²)</td>
<td>92±19</td>
<td>64±15</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Cardiac index (L/min/m²)</td>
<td>4.2±1.0</td>
<td>3.1±0.6</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>LV ejection fraction (%)</td>
<td>60±5</td>
<td>61±6</td>
<td>0.88</td>
</tr>
<tr>
<td>Septal E/e’ ratio</td>
<td>10.9±2.4</td>
<td>7.2±2.1</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Left atrial volume index (ml/m²)</td>
<td>51.1±11.9</td>
<td>33.8±7.5</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Tricuspid regurgitation velocity (m/s)</td>
<td>2.57±0.26</td>
<td>2.26±0.23</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Tricuspid regurgitation velocity &gt;2.5m/s, n (%)</td>
<td>34 (56)</td>
<td>4 (7)</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

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0172

The relationship between hyperleptinemia and diastolic dysfunction in patients with diabetes mellitus type 2

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Background The risk of myocardial pathology increases several times when type 2 diabetes mellitus (T2DM) is combined with other metabolic dis-