EXCESSIVE ACTIVITY OF VENTRICULAR REMODELING

Mascarenhas, M. [1,2], Clausen, N. [2]

[1]Biomediciana -IPA; [2] Cardiologia-HCPA/UFRGS, PoA, Brasil.

Levels of tumor necrosis factor-alpha (TNF-α), N-terminal propeptide of type III collagen (PIIINP) and matrix metalloproteinase-1 (MMP-1), biological markers of ventricular remodeling, are elevated in heart failure (HF) patients, perhaps reflecting elevated filling pressures. Randomized trial. Stable patients with HF and ejection fraction lower than 40% were allocated to the treatment groups and submitted to echocardiography and blood sampling at the beginning of the study and after 180 d.. TNF-α and MMP-1 were measured by ELISA, and PIIINP, by radioimmunoassay.TNF-α, MMP-1 and PIIINP levels were statistically different between baseline and final in patients allocated to Conventional Therapy (respectively, 3.11 ± 2.90 *v.* 1.24 ± 0.60 pg/mL $p < 0.0003$; 2.66 ± 1.00 *v.* 1.16 ± 0.40 ng/mL $p < 0.0001$; 6.12 ± 2.60 *v.* 3.89 ± 1.60 μg/L, $p < 0.0001$). Similarly, such a difference was also observed in the Echo-guided Therapy for the 3 markers (respectively, 3.90 ± 4.90 *v.* 1.40 ± 1.30 pg/mL $p < 0.0001$; 2.50 ± 0.90 *v.* 1.09 ± 0.40 ng/mL $p < 0.0001$; 6.09 ± 2.60 *v.* 3.50 ± 1.30 mg/L $p<0.0001$).Patients with baseline biological marker levels over percentile 75 maintained higher right atrial (13 mmHg; $p = 0.034$) and pulmonary artery systolic pressures (60 mmHg; $p = 0.007$) at the end. Data obtained suggest that indicators of an intense remodeling process are associated with elevated filling pressures and progression of HF.
Keywords: collagen, metalloproteinase. **Supported**: CNPq