PROGNOSTIC VALUE OF DIASTOLIC DYSFUNCTION IN ASYMPTOMATIC RHEUMATOID ARTHRITIS PATIENTS WITHOUT CARDIOVASCULAR RISK FACTORS
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Objectives: Rheumatoid arthritis (RA) is associated with increased mortality and morbidity due to subclinical cardiovascular (CV) disease. The study assessed the prevalence of left ventricular diastolic dysfunction (LVDD) and its prognostic value in RA outpatients without CV risk factors or previous CV disease.

Methods: The study included 70 RA outpatients, without known cardiopathy, studied by conventional echocardiography and tissue Doppler imaging (TDI) studies. CV risk factors (hypertension, smoke, obesity, diabetes mellitus) were derived from clinical records. Adverse events were considered any manifestation of CV disease.

Results: Among 70 RA patients, LVDD was assessed in 55 cases: 36 with and 19 without CV risk factors.
Comparing patients with and without LVDD according with ecocardiographic parameters, patients with LVDD showed a greater LV mass (p: 0.004) due to thicker interventricular septum (p < 0.001) and LV posterior wall (p < 0.001).
In 55 patients with LVDD, CV events were found in 14 patients (25%), represented by 4 arrhythmic events, 1 congestive heart failure, 4 ischemic cardiomyopathies, 4 cases of new onset arterial hypertension, 1 transient ischemic attack. In order to analyze the potential effect of LVDD on the onset of new CV events, we globally studied 28 patients without CV risk factors, consisting in 19 cases LVDD+/CV- and 9 cases LVDD-/CV-. Patients LVDD+/CV risks- showed a higher age (p < 0.001), longer RA duration (p: 0.03), higher diastolic blood pressure (p: 0.006), more frequent LV diastolic pattern (p < 0.001) and higher E/E’ value (p: 0.057). CV events occurred in 7/19 cases LVDD+/CV risk factors- (37%), represented by 1 congestive heart failure, 1 coronary bypass graft surgery, 1 transient ischemic attack, 4 cases of new onset arterial hypertension. No CV events were fund in 9 cases LVDD-/CV- (p: 0.043). Spearman’s correlation revealed that CV events were associated only in patients with LVDD (p: 0.397; p: 0.036). Age quite reached significance (p: 0.373; p: 0.051), while RA duration, age at symptoms onset and diastolic blood pressure did not correlate with CV events.

Conclusions: A high prevalence of LVDD in a population of outpatients affected by RA without CV risk factors was found. After 7 years of follow up, LVDD is associated to longer RA duration and higher age. CV events occurred more frequently in these patients. These findings have clinical relevance in routine assessment of RA patients.