Conclusion: Patients with RA and LVDD have a higher disease activity, so emphasis should be placed on strict antirheumatic treatment and cardiovascular therapies to avoid the risk of developing CVD and the progression to heart failure. Logistic regression demonstrates that inadequate disease control is an independent factor from traditional CVRFs for the presence of LVDD.

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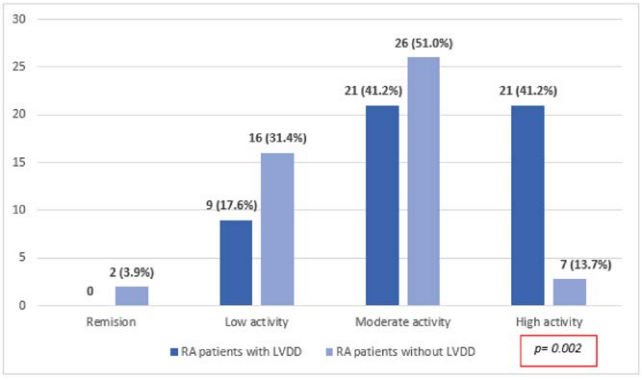
Figure 1. Classification of disease activity by DAS28-CRP



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POS0553

IMPACT OF RHEUMATOID ARTHRITIS ON LEFT VENTRICULAR REMODELING

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Background: Patients with Rheumatoid Arthritis (RA) have a higher prevalence of cardiovascular diseases (1) and a strong association with abnormalities in the left ventricle (LV) geometry. Both concentric and eccentric remodeling have been determined as an independent factor for sudden cardiac arrest in the general population with normal or slightly decreased ventricular function (2) but there is still controversy about the factors involved and the pathophysiology in patients with RA.

Objectives: The aim of the study is to determine the characteristics of LV geometry and the impact of RA.

Methods: A cross-sectional, observational, and comparative study of fifty-two RA patients that fulfilled ACR / EULAR 2010 classification criteria, aged 40-75 years. Controls were included and matched by age, gender, and comorbidities. Subjects were evaluated using a transthoracic echocardiogram performed and reviewed by two certified echocardiographers. Ventricular geometry was evaluated with indexed left ventricular mass and relative wall thickness. Distribution was evaluated with the Kolmogorov-Smirnov test. Descriptive analysis was done using measures of central tendency. Chi square, Student's t test and Mann-Whitney U test were used for comparations between groups. A logistic binary regression was performed with the traditional cardiovascular risk factors (CVRFs), age and RA diagnosis. A p value <0.05 was considered statistically significant.

Results: No significant differences were found in the traditional CVRFs (type 2 diabetes mellitus, dyslipidemia, active smoking, and hypertension) (Table 1). Most of the subjects reported normal geometry in both groups (55.8% for RA group vs 64.0% for controls). A higher prevalence of eccentric hypertrophy was found in the RA group, 13 (25%) subjects versus 3 (6%) in the control group, p = 0.009. The binary regression showed that the diagnosis of RA was the only independent risk factor for the presence of eccentric hypertrophy, OR 7.22 95% CI (1.68-31.02, p = 0.008).

Table 1. Demographic characteristics and echocardiographic findings.

	RA (n=52)	Control (n=50)	*p*
Age, years ± DE	51.4 ±6.2	51.1 ± 5.5	NS
Women, n (%)	51 (98.1)	49 (98.0)	NS
Active smoking, n (%)	8 (15.4)	8 (16.0)	NS
Dyslipidemia, n (%)	11 (21.2)	13 (26.0)	NS
Type 2 Diabetes Mellitus, n (%)	5 (9.6)	5 (10.0)	NS
HTN, n (%)	8 (15.4)	10 (20.0)	NS
BMI kg/m^2, median (p25-p75)	27.8 (24.5-31.4)	28.3 (25.4-30.3)	NS
BSA, median (p25-p75)	1.7 (1.6-1.8)	1.8 (1.6-1.9)	**0.003**
Systolic blood pressure, mmHg (p25-p75)	119.5 (110.0-127.5)	120.0 (110.7-130.0)	NS
Echocardiography findings			
LVPWTd, median (p25-p75)	0.9 (0.8-1.0)	0.9 (0.8-1.0)	NS
LVIDd, median (p25-p75)	4.8 (4.3-5.2)	4.6 (4.5-4.9)	NS
LV mass, median (p25-p75)	131.2 (119.5-155.7)	131.2 (113.2-154.3)	NS
LV mass index, median (p25-p75)	78.6 (69.7-95.6)	76.0 (66.7-84.6)	NS
RWT, mean ± SD	0.4 ± 0.09	0.4 ± 0.07	NS

NS, no significant; BMI, body mass index; BSA, body surface area; LVPWTd, left ventricular posterior wall thickness at end-diastole; LVIDd, left ventricular internal dimension at end-diastole; RWT, relative wall thickness.

Conclusion: There is a higher prevalence of eccentric remodeling in patients with RA independently of traditional CVRF. The diagnosis of RA is an independent risk factor for the presence of eccentric hypertrophy that is associated with higher mortality. Treatment of cardiovascular comorbidities should be intensified in those patients with abnormalities in LV geometry in order to prevent cardiovascular diseases such as heart failure.

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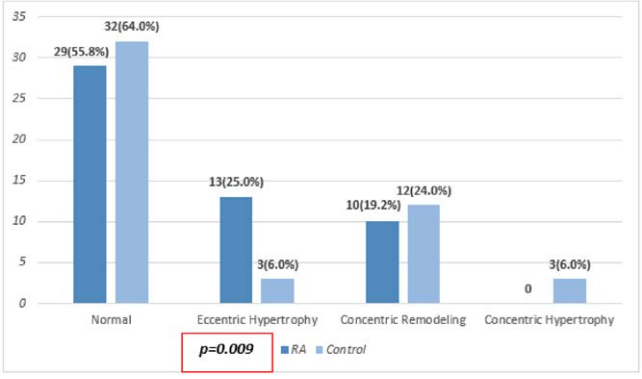
Figure 1. Abnormalities in left ventricular geometry in patients with RA.



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POS0554

MEDICAL COST AND RESOURCE USE IN PATIENTS STARTING TREATMENT FOR RHEUMATOID ARTHRITIS TREATED WITH AND WITHOUT CORTICOSTEROIDS IN JAPAN

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Background: The 2019 update of the European League Against Rheumatism (EULAR) treatment recommendations strongly recommends co-administration of corticosteroids (CSs) with conventional synthetic disease-modifying antirheumatic drugs (csDMARDs) in patients with RA as bridging therapy to improve the success rate of the first-line treatment and to avoid disease flare-ups[1]; however, current treatment guidelines for RA in Japan do not clearly mention about their use. Poor disease management after the initial diagnosis can affect the overall use of health services and the economic burden on patients.

Objectives: To describe medical costs and resource use in patients with early RA treated with and without oral or injectable corticosteroids (CSs) as part of their initial treatment with disease-modifying antirheumatic drugs (DMARDs) in Japan.