handed patients, destruction occurred in the non-dominant wrist. Patients received a mean number of 4.7 DMARDs.

Conclusion: Severely destructive unilateral wrist arthritis represents a rare phenotype of RA. In our cohort, this type of joint involvement was only present in women, it occurred primarily in the dominant hand (75%), and in smokers (75%). The mean number of used DMARDs was very high. Further studies for assessing the prevalence of this entity, also in seronegative patients, are required.

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Abstract THU0141 – Figure 1. Illustrative sample radiograph showing severely destructive unilateral wrist arthritis. While there is generalized osteopenia, other joints are relatively spared.

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THU0142 DIAGNOSTIC AND PREDICTIVE VALUE OF CAROTID AND TIBIAL ARTERIES ULTRASOUND MORPHOLOGY CHANGES IN FEMALE WITH RHEUMATOID ARTHRITIS

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Background: Carotid plaque (CP) is one of the surrogate markers of atherosclerosis. The association of ultrasound carotid and tibial intima-media morphology abnormalities with clinical and laboratory markers of atherosclerosis in patients with rheumatoid arthritis (RA) is uncertain.

Objectives: To determine the diagnostic and prognostic value of the carotid and tibial arteries ultrasound changes in women with RA, depending on age, menopause and laboratory parameters.

Methods: The study was performed on 105 women with RA according to the ACR/EULAR 2010 criteria in the mean age 44.2±13.3 years without history of CVD. Female patients were divided in two groups by menopause: 51.4% premenopausal (PreM) and 48.6%; postmenopausal (PM) women. Carotid and tibial arteries ultrasonography examination included the measurement of cIMT in 3 points, detection of focal plaques in the extracranial carotid tree, blood flow velocity and morphology of the intima was performed. 30 age-matched healthy women were examined by the same parameters.

Results: The cIMT > 0.9 mm was detected in 38 (36.2%) patients. Patients with cIMT > 0.9 mm had significantly higher age, RA duration, serum levels of the total cholesterol (TC), LDL, apolipoprotein apo B and CRP. CPs were observed three times more often in patient with cIMT > 0.9 mm than without thickness of carotid intima-media (cIM) ((50% vs 16.4%, p<0.05). Carotid intima-media morphology abnormalities (fragmentation and sclerosis) were observed in 73.3% RA patients, mostly with CP

(100%) and cIMT > 0.9 mm (97.4%). In the most Prem RA women (58.1%) with low CV risk according to mSCORE calcinosis of the tibial artery (TA) was identified. Among the patients with CP 86.7% had calcinosis of the TA, 92% of whom were PM. No vascular abnormalities were detected in healthy control. The TC and LDL levels were significantly higher in patients with CP, cIMT > 0.9 mm, TA fibrosis and calcinosis than without (5.4 mmol/L vs 4.6 mmol/L). The significant correlations between LDL level and cIMT > 0.9 mm (r=0.32; p= 0.04); presence of CP (r=0.38; p=0.00006), cIM fragmentation (r = 0.34; p = 0.0003), RI CA (r=0.21; p=0.03), diffuse TA fibrosis (r = 0.44; p = 0.03) were identified. The DAS28, CRP level, Vps CA, anti-CCP positivity, cIMT > 0.9 mm had high predictive value for the development TA fibrosis in PreM RA women. The TA calcinosis was positively correlated with carotid intima-media morphology abnormalities ($\chi^2=31.6$; p<0.01), presence of the CP ($\chi^2=26.2$; p<0.01), cIMT > 0.9 mm ($\chi^2=8.5$; p<0.01).

Conclusion: According to the data of multiple logistic regression the risk factors for the development of moderate, high and very high CV risk in RA women were DAS28, levels of CRP and LDL, swollen joint count, menopause, cIMT > 0.9 mm and TA fibrosis. Prem RA women with low CV risk according to mSCORE, high level of TC and/or LDL, presents of cIMT > 0.9 mm and/or carotid intima-media morphology abnormalities and/or TA calcinosis can be candidate for initiation lipid-lowering therapy.

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THU0143 LOW-ENERGY FRACTURES IN RHEUMATOID ARTHRITIS – ASSOCIATIONS WITH GENES AND CLINICAL CHARACTERISTICS

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Background: Patients with rheumatoid arthritis (RA) have increased risk of osteoporosis and low-energy fractures. Several genes associated with bone mineralization, osteoporosis or risk of fracture in the general population have been identified.

Objectives: To analyse the association between nine selected SNPs and the risk of low-energy fracture, taking clinical patient characteristics into account.

Methods: We identified a cohort of patients (n=896, 70% women, age at inclusion 60.0±14.8 years) with RA according to ACR criteria from the catchment area of the register of Umeå injury database, Umeå, Sweden, which enabled identification of low-energy fractures (n=254). The follow-up (mean 8.8±6.1 years, total 7928 person-years) started two years after RA diagnosis but not earlier than January 1, 1993 and ended at the first of December 31, 2011, death or the first low-energy fracture. Nine SNPs were analysed in all patients with available DNA-samples (n=667) using KASPTM genotyping assays (LGC genomics Ltd, Hoddesdon, UK): rs3801387 (WNT16), rs6666455 (SOAT), rs3736228 (LRP5), rs4796995 (FAM210A), rs4792909 (SOST), rs2062377 (TNFRSF11B/OPG), rs884205 (TNFRSF11A/RANK), rs9533090 (TNFSF11/RANKL), and rs1373004 (DKK1). Anti-CCP was analysed and clinical patient characteristics (duration of RA, ever smoking, disease activity the first two years after RA diagnosis, and joint erosions) were extracted from patient files. Associations between the risk of fracture and risk alleles in the cohort were evaluated using Kaplan-Meier curves (K-M) and Cox proportional hazards models: crude, adjusted for age and sex, and for clinical patient characteristics.

Results: The SNPs: rs1373004, rs4792909, and rs2062377 were associated with the risk of fracture in K-M analyses (Figure 1). For the other genes no significant associations were observed. Patients carrying the risk allele of rs1373004 (22.6% of the patients), or who were homozygous for the risk allele of SNP rs4792909 (38.6%), had a >50% higher risk of low-energy fracture compare to other patients, irrespectively of disease characteristics (Table 1). The association between rs2062377 and the risk of fracture was not independent of clinical patient characteristics (Table 1).

Abstract THU0143 –Table 1. Cox proportional hazards models estimating the risk of low-energy fracture associated with SNPs in patients with RA

	Freq	HR1*	95% C.I.	HR2*	95% C.I.	HR3*	95% C.I.
rs1373004, T-carrier	22.6%	1.61	1.16;2.22	1.61	1.16;2.22	1.68	1.17;2.41
rs4792909, GG vs. TT+TG	38.6%	1.59	1.19;2.14	1.53	1.13;2.05	1.54	1.12;2.13

r2062377, AA vs. TA 35.7% 1.36 1.01;1.83 1.28 0.81;1.59 1.19 0.86;1.65 +TT

*Hazard ratio (HR)1=crude model, HR2= adjusted for age at inclusion and sex, HR3=adjusted for age at inclusion, sex, duration of RA, anti-CCP positivity, ever smoking, disease activity the first two years after RA diagnosis, and erosive disease.

Figure 1. Probability of fracture-free survival related to three SNPs in patients with RA

Abstract THU0143 – Figure 1

Conclusion: Genes related to bone metabolism may have a considerable contribution to the already high risk of low-energy fractures in RA.

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THU0144 ECHOCARDIOGRAPHIC ABNORMALITIES AMONG HISPANIC PATIENTS WITH RHEUMATOID ARTHRITIS: A CASE CONTROL STUDY

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Background: Rheumatoid arthritis (RA) is a chronic, systemic, inflammatory disease that mainly affects the synovial joints. Subjects with RA have an increased cardiovascular (CV) morbimortality (1). This increase in cardiovascular diseases (CVD) is not explained by traditional risk factors (2). Screening for CVD in RA patients is an essential part of CV risk management. Echocardiography is a simple, non-invasive approach that provides reliable markers for cardiac evaluation (3).

Objectives: To determine the prevalence of echocardiographic abnormalities in RA patients and compare them to matched controls.

Methods: Observational, cross-sectional study. RA patients aged 40 to 75 years that fulfilled the 2010 ACR/EULAR classification criteria and matched controls were included. Patients with a poor ultrasound window, history of previous atherosclerotic CVD (ischemic heart disease, cerebrovascular accident or peripheral arterial disease) and pregnancy were excluded. Transthoracic echocardiogram was performed and reviewed by 2 board-certified cardiologists. Differences were solved by consensus. Descriptive analysis was done with frequencies (%) and median (q25-q75), and comparisons with Chi-square and Mann U-Whitney's test.

Results: A total of 133 subjects were included. Baseline characteristics are shown in Table 1. Groups were well balanced, with no differences among them. Echocardiographic comparisons are shown in Table 2. Prevalence of abnormal left ventricle (LV) geometry was higher in RA patients ($p=.038$), as were mitral and tricuspid valvular dysfunction ($p<0.001$). The LV ejection fraction was lower in RA subjects ($p=.044$).

Abstract THU0144 –Table 1. Clinical characteristics.

	RA (n=85)	Control (n= 48)	P
Female, n (%)	81 (95.3)	46 (95.8)	1

Age, mean $\pm$ SD	54.4 $\pm$ 8.4	53.1 $\pm$ 6.9	0.169
T2DM, n (%)	10 (11.8)	2 (4.2)	0.210
Hypertension, n (%)	21 (24.7)	11 (22.9)	0.817
Active smoking, n (%)	7 (8.2)	5 (10.4)	0.341
Dis. duration, yr, mean $\pm$ SD	9.8 $\pm$ 8.4	-	-
BMI, Kg/m ² , mean $\pm$ SD	28.5 $\pm$ 4.8	27.9 $\pm$ 4.3	0.375
DAS 28-CRP, mean $\pm$ SD	3.1 $\pm$ 1.1	-	-

Abstract THU0144 –Table 2. Echocardiographic findings

	RA (n=85)	Control (n=48)	P
Diastolic dysfunction, n (%)	32 (37.6)	17 (35.4)	0.906
LV Geometry alterations, n (%)	27 (31.7)	6 (12.5)	0.038
LV mass index (g/m ²), median (q25 –q75)	70.1 (36.5 - 119.4)	72.9 (39.7 - 134.5)	NS
LV end diastolic diameter (cm), median (q25 –q75)	1.2 (.9 -1.9)	1.2 (.9 - 1.8)	NS
LV end systolic diameter (cm), mean $\pm$ SD	2.7 $\pm$.4	2.8 $\pm$.4	NS
Aortic valvulopathy, n (%)	16 (18.8)	3 (6.2)	0.078
Mitral valvulopathy, n (%)	47 (55.2)	8 (16.6)	0.001
Pulmonary valvulopathy, n (%)	9 (10.5)	-	0.066
Tricuspid valvulopathy, n (%)	71 (83.5)	25 (52.1)	0.000
LV Ejection Fraction (%), median (q25 –q75)	60.5 (51-76)	63.7 (54-77)	0.044

LV= Left ventricle.

Conclusion: Patients with rheumatoid arthritis have higher prevalence of mitral and tricuspid valves dysfunction in our population, and greater left ventricular geometry alterations, compared to controls. As the left ventricular ejection fraction is a strong prognosticator for CV disease, echocardiography might be a simple non-invasive tool for cardiac risk screening in RA.

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THU0145 INCIDENCE, TREND AND FACTORS ASSOCIATED WITH OPPORTUNISTIC INFECTION (OI) IN PATIENTS WITH RHEUMATOID ARTHRITIS IN SPAIN. (TREND-AR STUDY)

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Background: The epidemiology of hospitalizations for Opportunistic Infections (OI) in patients with rheumatoid arthritis (RA) is unknown despite an increase in RA treatments that confer risk of infection.

Objectives: To analyze the incidence, trend and factors associated with hospitalizations due to OI in patients with RA, in Spain, during the period between 1999 and 2015.

Methods: Population study based on the analysis of a national administrative database that includes a Minimum Basic Data Set (MBDS) of the income of patients with RA (ICD 9 714). Period: January 1, 1999 to December 31, 2015. The following entities were included as OI: tuberculosis (tbc), nontuberculous mycobacteria, cytomegalovirus (CMV), Epstein-Barr virus (EBV), Herpes zoster (HZ), Candidiasis, Toxoplasmosis, Pneumocystosis, Cryptococcosis, Listeriosis, Nocardiosis, Aspergillosis, Coccidioidomycosis, Histoplasmosis, Blastomycosis, Strongyloides, Leishmaniasis, Cryptosporidium, Trypanosoma cruzi, JVC and other prion viruses. These diagnoses were identified by the presence in primary and secondary diagnosis of their ICD9 codes. The population at risk was estimated