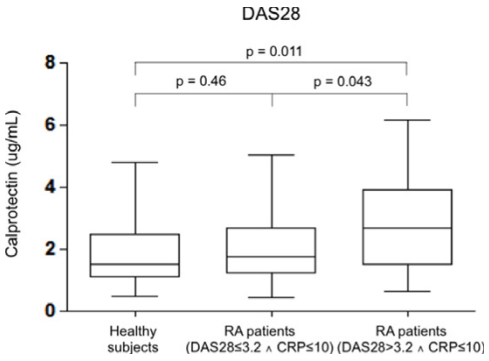
using AUC of the DAS28 was 0.607 (95% CI 0.503 to 0.711, p=0.043) with an optimal cut-off 2.5 μg/mL.



Conclusions: The present study demonstrates that calprotectin may reflect inflammatory activity in RA patients where CRP fails to do so.

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THU0114 EFFECTS OF SMOKING ON BARICITINIB EFFICACY IN PATIENTS WITH RHEUMATOID ARTHRITIS: POOLED ANALYSIS FROM TWO PHASE 3 CLINICAL TRIALS

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Background: The efficacy of some rheumatoid arthritis (RA) therapies is reduced among patients who are smokers.

Objectives: This post-hoc analysis of two phase 3 studies assessed the effects of patient smoking status on the response to baricitinib treatment in patients with RA.

Methods: In RA-BEAM (NCT01710358), patients with inadequate response to methotrexate were randomized to placebo once-daily (QD) (N=488), baricitinib 4 mg QD (N=487), or adalimumab 40 mg biweekly (N=330).[1] In RA-BUILD (NCT01721057), patients with inadequate response to conventional synthetic disease modifying antirheumatic drugs (csDMARDs) were randomized to placebo (N=228) or baricitinib (2 mg, N=229; or 4 mg, N=227) QD.[2] Patients continued background csDMARD therapy in both studies. This post-hoc analysis was conducted in the placebo (N=716) and baricitinib 4 mg (N=714) patients. Patient-reported smoking status was categorized as current (smokers) or not current (non-smokers).

Results: Among 1,430 evaluable patients who received placebo or baricitinib 4 mg, 290 (20.3%) were smokers. Smoking status at baseline did not affect the clinical results of treatment with baricitinib for 24 weeks; smokers who received placebo were numerically less likely than non-smokers receiving placebo to achieve most clinical outcomes (Table). Baricitinib's effect on modified total Sharp score was more pronounced among nonsmokers (interaction p-value =0.07).

Table 1. Efficacy outcomes at week 24 with data up to rescue

	Placebo (N=716)		Baricitinib 4 mg (N=714)	
	Smoker (n=139)	Non-Smoker (n=577)	Smoker (n=151)	Non-Smoker) (n=562)
ACR20	44 (31.7)	231 (40.0)	108 (71.5)	399 (71.0)
ACR50	24 (17.3)	119 (20.6)	76 (50.3)	270 (48.0)
ACR70	8 (5.8)	49 (8.5)	49 (32.5)	151 (26.9)
SDAI ≤3.3	5 (3.6)	19 (3.3)	24 (15.9)	88 (15.7)
SDAI ≤11	24 (17.3)	137 (23.7)	72 (47.7)	294 (52.3)
CDAI ≤2.8	4 (2.9)	24 (4.2)	24 (15.9)	89 (15.8)
CDAI ≤10	22 (15.8)	137 (23.7)	71 (47.0)	289 (51.4)
DAS28-hsCRP ≤3.2	24 (17.3)	123 (21.3)	75 (49.7)	296 (52.7)
DAS28-hsCRP <2.6	9 (6.5)	53 (9.2)	51 (33.8)	192 (34.2)
HAQ-DI ≥0.3	47 (33.8)	219 (38.0)	103 (68.2)	346 (61.6)
HAQ-DI ≥0.22	61 (43.9)	254 (44.0)	108 (71.5)	381 (67.8)
mTSS change ≤0*	68/96 (70.8)	250/356 (70.2)	78/107 (72.9)	304/363 (83.7)

Data are n (%). *mTTS data are from RA-BEAM only.

Conclusions: This analysis of smokers and non-smokers in two RA trials demonstrated that the beneficial effect of baricitinib treatment versus placebo was similar on all clinical endpoints, but may differ for structural damage progression.

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Disclosure of Interest: J. Curtis Grant/research support from: AbbVie, Amgen, BMS, Janssen, Pfizer, Roche/Genentech, Corrona, UCB, Myriad, Eli Lilly and Company, Consultant for: AbbVie, Amgen, BMS, Janssen, Pfizer, Roche/Genentech, Corrona, UCB, Myriad, Eli Lilly and Company, Employee of: University of Alabama at Birmingham, P. Emery Consultant for: Pfizer, MSD, Abbvie, BMS, UCB, Roche, Novartis, Samsung, Sandoz, Eli Lilly and Company, G. Burmester Consultant for: Eli Lilly and Company, V. Arora Employee of: Eli Lilly and Company, J. Alam Employee of: Eli Lilly and Company, D. Muram Employee of: Eli Lilly and Company, L. Klareskog Grant/research support from: Janssen, Pfizer, BMS, GSK, AbbVie, Roche.

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THU0115 DISABILITY (HAQ) AND QUALITY OF LIFE (SF-12) AS RELATED TO ADHERENCE AND HEALTH LITERACY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Disabilities in daily living and quality of life are key endpoints to evaluate the outcome of treatment for rheumatoid arthritis (RA). Among factors that may contribute to good outcome are adherence (i.e., the extent to which patients' behaviors corresponds with agreed recommendations from their doctor) and health literacy (patients' understanding and use of health information).

Objectives: The survey included a representative, nationwide sample of German physicians specialized in RA and patients with RA. The physician questionnaire included the disease activity score (DAS28) and medical prescriptions. The patient questionnaire included fatigue (EORTC QLQ-FA13), health assessment questionnaire (HAQ), quality of life (SF-12), health education literacy (HELP), and patients' listings of their medications.

Methods: Adherence was operationalized in various ways: patient-reported (CQR5), behavioral (correspondence between physicians and patients listings of medications), physician-assessed (five-point rating scale ranging from 1=very adherent to 5=not at all adherent) and a combined measure of physician rating (1= very adherent, 0 = less adherent) and the match between physicians' prescriptions and patients' accounts of their medications (1 = perfect match, 0 = no perfect match), leading to three categories of adherence: high, medium and low. Linear regressions were calculated using HAQ and SF-12 (physical and psychological) as dependent variables and adherence, health literacy and the set of demographic and clinical variables as predictor variables.

Results: A total of 708 pairs of patient and physician questionnaires were analyzed. The mean age of the patients, of whom 73% were women, was 60 years (SD=12).

Multiple regression analyses show, that health literacy is an independent predictor for HAQ and both SF-12 scales. Adherence by doctor is an independent predictor for both SF-12 scales while the adherence composite score is an independent predictor for HAQ and SF-12 psychological. Taking all 4 rheumatoid medications as prescribed is an independent predictor for HAQ and SF-12 physical. All models

Table 3: Multiple linear regression models

		HAQ*			SF-12 Physical			SF-12 Psychological		
MLR model*	Predictor	B (95%-CI)	p-value	R^2	B (95%-CI)	p-value	R^2	B (95%-CI)	p-value	R^2
Model 1	All 4 rheumatism agents taken as prescribed	4.41 (.45, 8.38)	.029	20 %	2.39 (.51, 4.28)	.013	16 %	.34 (-1.67, 2.35)	.741	15 %
	Adherence by doctor (ref. medium or less adherence)									
	adherent	1.79 (-3.89, 7.45)	.534		3.14 (.43, 5.86)	.023		.74 (-2.15, 3.64)	.615	
	Very adherent	3.01 (-2.56, 8.58)	.289		3.28 (.61, 5.95)	.016		3.10 (.254, 5.95)	.033	
	Health education literacy*	.330 (.229, .431)	<.001		.141 (.093, .189)	<.001		.220 (.169, .272)	<.001	
Model 2	All 4 rheumatism agents taken as prescribed	3.22 (-.87, 7.32)	.123	20 %	2.00 (.04, 3.96)	.046	15 %	-.11 (-2.20, 1.98)	.919	15 %
	Adherence composite score (ref. low adherence)									
	medium adherence	2.22 (-1.16, 6.06)	.256		.67 (-1.17, 2.51)	.476		.12 (-1.84, 2.08)	.905	
	high adherence	5.06 (.62, 9.50)	.026		1.48 (-.65, 3.61)	.172		2.74 (.47, 5.01)	.018	
	Health education literacy*	.323 (.222, .423)	<.001		.141 (.093, .190)	<.001		.223 (.171, .274)	<.001	

All models are adjusted for sex, age, drinking alcohol (y/n), smoking status (y/n) and sport activities (y/n);
B, regression coefficient; 95%-CI, 95%- confidence interval; *linearly transformed on a scale from 0 (negative/low) to 100 (positive/high)

are additionally controlled for age, sex, smoking (y/n), drinking alcohol (y/n), sport (y/n).
Conclusions: This study showed that HAQ and SF-12 were related to adherence and health literacy. This finding highlights the importance of patient education and counseling in order to increase both, medical understanding and adherence to therapy.
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Disclosure of Interest: None declared
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THURSDAY, 15 JUNE 2017

Rheumatoid arthritis - comorbidity and clinical aspects

THU0116 EUROPEAN MULTICENTRE PILOT SURVEY TO ASSESS VITAMIN D AND CLINICAL STATUS IN RHEUMATOID ARTHRITIS PATIENTS

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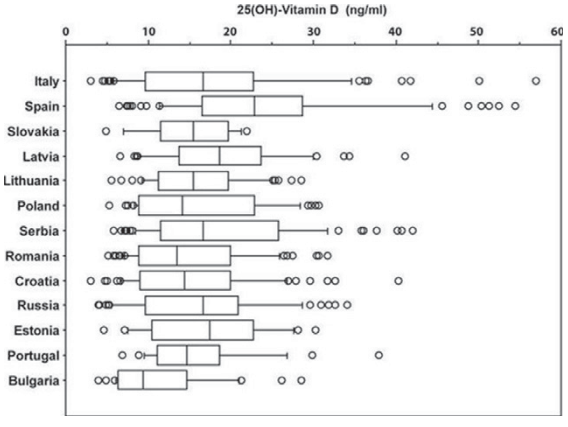
Background: Vitamin D (25(OH)D) deficiency seems a distinct risk factor influencing prevalence and severity of several autoimmune diseases. Several studies suggest that low serum concentrations of vitamin D are frequent in rheumatoid arthritis (RA) patients, and an inverse relationships have been reported between 25(OH)D serum concentrations and disease activity or disability.
Objectives: European multicentre cross-sectional study to collect data on vitamin D serum concentrations in RA patients from different countries, and to investigate the relationship with disease activity, disability and quality of life in a large population.
Methods: The survey involved 625 RA patients (mean age 55±11 years, mean disease duration 11±9 years) and 276 age and sex-matched healthy subjects from 13 European countries. Serum samples for 25(OH)D measurement were collected during winter time (December-March) and analyzed in a central laboratory using chemiluminescence immunoassay (DiaSorin). Thirty-six percent of RA patients were treated with vitamin D analogues. Patient past medical history, Rheumatoid Arthritis Impact Diseases (RAID) score, Health Assessment Questionnaire (HAQ) and DAS28-CRP were also collected. Statistical analysis was performed by non parametric tests.



Results: Mean serum concentration of 25(OH)D was found significantly lower in RA patients (17.6±9.7 ng/ml) when compared to matched controls (18.9±9.4 ng/ml) (p=0.01), Several statistically significant differences between European countries were observed (possibly linked to different latitude, sun exsposure and dietary habits) (see figure). Vitamin D deficiency (<20 ng/ml) was found in almost 66% of RA patients, and severe deficiency (<10 ng/ml) was detected in almost 25% of them; insufficiency (between 20 and 30 ng/ml) was found in 27% of RA patients. Only 6% of the RA patients were found within the normal concentrations (>30 ng/ml). Male and female RA patients showed similar 25(OH)D values. Negative statistically significant correlations were found between 25(OH)D serum concentrations and RAID (p=0.05) HAQ (p=0.04) and DAS28-CRP (p<0.001) scores in the RA patients group.
Conclusions: This European survey add new evidences that vitamin D insufficiency/deficiency is frequent in RA patients with statistically significant differences between several countries. Vitamin D serum concentrations negatively correlate with the clinimetric indexes for disease activity, disability and quality of life in the present cohort of RA European patients.
Disclosure of Interest: None declared
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THU0117 INDEPENDENT ASSOCIATIONS OF DISEASE CHARACTERISTICS AND CARDIOVASCULAR RISK FACTORS WITH LEFT VENTRICULAR DIASTOLIC FUNCTION IN RHEUMATOID ARTHRITIS

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Background: Heart failure contributes to the excess mortality experienced by patients with rheumatoid arthritis (RA) (1). Impaired diastolic function represents a pre-clinical cardiac alteration which is highly predictive of cardiac events and often progresses to heart failure. Diastolic dysfunction is the most common cause of heart failure in patients with a preserved ejection fraction. Whereas RA is associated with an increased prevalence of impaired diastolic function (2,3), the pathophysiological mechanisms that mediate this comorbidity await further elucidation.
Objectives: This study aimed to identify potential determinants of ventricular (LV) diastolic function in patients with RA.
Methods: LV diastolic function was determined in 176 patients with RA; 9 patients had established cardiovascular disease. LV diastolic function was determined by echocardiography from the ratio of early-to-late transmitral blood flow velocity (E/A), the ratio of E to the mean of the lateral and septal wall myocardial tissue lengthening at the mitral annulus (e') (E/e'), and the lateral e'. Relationships of comprehensively evaluated traditional cardiovascular risk factors and RA characteristics with markers of LV diastolic function were determined in confounder adjusted multivariate regression models.
Results: Disease duration (partial r=-0.23, p=0.00), rheumatoid factor status (partial r=-0.16, p=0.04) and erythrocyte sedimentation rate (partial r=-0.16, p=0.04) were associated with lower logarithmically transformed (log) E/A. Upon further adjustment for left ventricular mass index or relative wall thickness, these relationships remained significant (p≤0.05). Diastolic blood pressure was related to log E/e' (partial r=-0.16, p=0.04); this association was no longer significant after additional adjustment for left ventricular mass index (p=0.06) or relative wall thickness (p=0.06). Disease duration (partial r=-0.32, p=0.00), waist-to-hip ratio (partial r=-0.29, p=0.00) and triglycerides (partial r=-0.17, p=0.03) were related to log lateral e'. These relationships remained significant upon further adjustment for left ventricular mass index (for all p=0.00) or relative wall thickness (for all p=0.00). In sensitivity analysis among RA patients without established cardiovascular disease (n=167), the results were not materially altered.
Conclusions: Modifiable traditional cardiovascular disease risk factor and disease characteristics are consistently associated left ventricular diastolic function in RA.
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