CCP positive patients. Much less is known about prognostic markers in seronegative RA. Several studies report worse drug survival and worse patient reported outcomes in women with RA. This affects outcomes such as the 28-joint disease activity score (DAS28) and the health assessment questionnaire (HAQ). How these differences relate to autoantibody status is unknown.

Objectives: To investigate if the relation between sex and clinical outcomes varies by autoantibody status in patients with early RA.

Methods: An inception cohort of patients with early RA (n=233; symptoms duration ≤12 months), recruited in 1995–2005, was studied. All the patients fulfilled the 1987 American College of Rheumatology criteria for RA. The patients were managed according to usual care, with no pre-specified protocol for pharmacotherapy or rehabilitation. In a structured follow-up program, all patients were examined by the same rheumatologist. In the present study we divided the patient population in three groups according to autoantibodies status: RF and anti-CCP seropositive (double positive), RF or anti-CCP seropositive, RF and anti-CCP seronegative (double negative). We examined the relation between sex and different outcomes at 12 months (EULAR good response, clinical remission (DAS28 <2.6), HAQ≤0.5 and low pain score (VAS pain 0–100 of <20) by means of logistic regression.

Results: Complete data on autoantibody status at baseline was available for 201 patients (mean age at inclusion 61 years, 72% female, 60% RF positive and 58% anti-CCP positive). Twenty-eight% of the patients were double negative, 27% were single positive and 45% were double positive. Mean baseline DAS28 was 4.53. All patients were treated with a conventional synthetic DMARD (48% with methotrexate). Oral glucocorticoids were prescribed in 38% of patients. At the 1 year follow up, 19% had a EULAR good response, 21% were in remission, 40% had low pain and 53% low HAQ. Male patients in the double negative group were more likely to reach remission (odds ratio (OR) 6.40; 95% confidence interval (CI) 1.6–26.2) and EULAR good response (OR 4.67; 95% CI 1.2–18.3) compared to females. There were no such associations among the double positive patients (Table). Results were similar in analyses adjusted for DAS28 at baseline (Table). There was a similar pattern among double negative patients for low pain at 1 year (OR for male vs female patients 2.25; 95% CI 0.58–8.67 – adjusted for baseline pain), but no association between male sex and low HAQ at 1 year in double negative patients (OR 0.99; 95% CI 0.23–4.22 – adjusted for baseline HAQ) or the other subgroups.

Abstract SAT0093 – Table 1

Impact of sex on the chance of EULAR good response and clinical remission at the 1-year follow-up in patients with early RA. Logistic regression analysis.

	Sex	EULAR good response OR (95% CI)		Clinical remission* OR (95% CI)	
		Crude	Adjusted for baseline DAS28	Crude	Adjusted for baseline DAS28
All	Female (n=144)	(reference)	(reference)	(reference)	(reference)
	Male (n=57)	1.9 (0.9-3.7)	1.9 (0.9-3.7)	2.0 (1.0-3.9)	2.1 (1.0-4.1)
RF and anti-CCP negative	Female (n=42)	(reference)	(reference)	(reference)	(reference)
	Male (n=14)	4.7 (1.2-18.3)	6.0 (1.3-26.4)	6.4 (1.6-26.2)	6.3 (1.5-25.9)
RF or anti-CCP positive	Female (n=41)	(reference)	(reference)	(reference)	(reference)
	Male (n=13)	3.2 (0.6-17.2)	3.4 (0.6-20.6)	3.8 (0.8-17.7)	2.1 (0.3-12.3)
RF and anti-CCP positive	Female (n=61)	(reference)	(reference)	(reference)	(reference)
	Male (n=30)	1.3 (0.4-4.5)	1.2 (0.3-4.2)	0.9 (0.3-2.9)	1.1 (0.3-3.7)

*DAS 28 <2.6

Conclusions: In the subgroup of patients with seronegative early RA, male patients are more likely than female patients to reach DAS28 remission and EULAR Good Response after treatment with conventional synthetic DMARDs.

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SAT0087 ASSOCIATION OF BIOMETRICS WITH DISEASE CHARACTERISTICS AND SYNOVIAL PHENOTYPE IN INFLAMMATORY ARTHRITIS

C. Low, R. Conway, F. Young, K. Murray, H. Convery, M. Biniecka, U. Fearon, D. Veale. Centre for Arthritis and Rheumatic Disease, St. Vincent's University Hospital, Dublin Academic Medical Centre, Elm Park, Dublin 4, Ireland, Dublin, Ireland

Background: The potential importance of altered body composition in the development of and disease course in inflammatory arthritis is increasingly being recognised. Body composition in different types of inflammatory arthritis and its influence on synovial pathology remains to be fully characterised.

Objectives: To evaluate body composition in seropositive and seronegative rheumatoid arthritis (RA) and psoriatic arthritis (PsA) patients and assess associations with disease characteristics and baseline synovial arthroscopic findings.

Methods: We performed a prospective observational study of consecutive inflammatory arthritis patients seen in outpatient clinics. Demographic and clinical characteristics were collected on all patients. Synovial biopsy was performed by needle arthroscopy, and macroscopic and histologic features recorded. The degree of synovitis and vascularity were recorded on a 0–100 mm visual analogue scale, and chondropathy on a semi-quantitative scale from 0–3. Mann-Whitney U test was used to compare groups. Spearman's Rank Correlation Coefficient was used to assess for associations between biometrics and demographic and clinical markers. GraphPad Prism Version 7 and IBM SPSS Statistics Version 24 were used for data analysis.

Results: We included 58 patients, 32 with seropositive RA, 10 with seronegative RA, and 16 with PsA. 37 (64%) were female. Mean (SD) age was 52.8 (13.9) years. Mean (SD) BMI was 29.7 (6.3) kg/m², waist circumference was 94.4 (20.3) cm, and hip circumference 104.3 (21) cm. Full demographic and clinical details are shown in table 1. Seronegative RA patients had significantly increased BMI (p=0.033) and waist circumference (p=0.017), but not hip circumference (p=0.248) compared to seropositive RA patients. PsA patients had significantly increased BMI (p<0.001), waist circumference (p=0.001), and hip circumference (p<0.001) compared to seropositive but not seronegative RA patients. There was a significant correlation between waist circumference and both synovitis (r=0.31, p=0.018) and vascularity (r=0.34, p=0.010) at arthroscopy. BMI and hip circumference did not correlate with arthroscopic findings.

	Seropositive RA	Seronegative RA	PsA
Female, n (%)	18 (56.3)	7 (70)	12 (75)
Age, mean (SD), years	55.9 (14.6)	46.7 (15.8)	50.6 (9.6)
Rheumatoid Factor+, n (%)	31 (96.9)	0 (0)	3 (18.8)
ACPA+, n (%)	24 (75)	0 (0)	2 (12.5)
BMI, mean (SD), kg/m ²	26.9 (4.8)	31.9 (7.1)	34.0 (5.8)
Waist circumference, mean (SD), cm	86.4 (20.4)	101.3 (16.3)	105.9 (15.4)
Hip circumference, mean (SD), cm	98.4 (23.9)	105.8 (16.4)	115.4 (11.1)
CRP, mean (SD), mg/L	12.8 (17.8)	18.6 (27.1)	7.5 (6.0)
ESR, mean (SD), mm/hr	28.2 (24.5)	18.9 (19.7)	17.5 (8.8)
Swollen Joint Count, mean (SD)	4.1 (5.0)	2.4 (3.1)	3.2 (6.1)
Tender Joint Count, mean (SD)	6.2 (6.8)	7.5 (7.5)	4.4 (7.1)
VAS general health, mean (SD), mm	49.1 (31.0)	51.3 (21.3)	49.1 (25.2)
DAS28-CRP, mean (SD)	3.91 (1.54)	3.98 (0.94)	3.6 (1.4)
Synovitis, mean (SD), mm	65.3 (20.3)	60.0 (14.1)	75.0 (12.6)
Vascularity, mean (SD), mm	62.5 (19.8)	58.0 (17.5)	75.0 (13.2)
Chondropathy, mean (SD)	1.6 (0.7)	1.4 (0.6)	1.5 (0.7)

Conclusions: Different types of inflammatory arthritis have distinct body composition profiles. Waist circumference, but not other biometrics, correlates with baseline synovial inflammation and vascularity.

Disclosure of Interest: None declared

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SAT0088 PREDICTIVE FACTORS FOR INTERSTITIAL LUNG DISEASE PROGRESSION IN PATIENTS WITH RHEUMATOID ARTHRITIS: A ROLE FOR BIOLOGICAL INFLAMMATION AND DISEASE MODIFIED ANTI RHEUMATIC DRUGS (DMARDS)

C. Lucas¹, S. Jouneau², M. Lederlin³, S. Guillot⁴, C. Salliot⁵, L. Joffres⁶, E. Solau-Gervais⁶, M. Herbet⁷, A. Sarau⁷, J.-B. Cren⁸, B. Bouvard⁸, J.-D. Albert¹, G. Coiffier¹, P. Guggenbuhl¹, A. Perdriger¹. ¹Rheumatology department, University Hospital Center; ²Pneumology department, University Hospital Center; ³Radiology department; ⁴Pneumology department, University Hospital Center, Rennes; ⁵Rheumatology department, Hospital Center, Orléans; ⁶Rheumatology department, University Hospital Center, Poitiers; ⁷Rheumatology department, University Hospital Center, Brest; ⁸Rheumatology department, University Hospital Center, Angers, France

Background: Interstitial Lung Disease (ILD) related to Rheumatoid Arthritis (RA) is frequent. ILD is associated with an increased mortality in RA patients. Predictive factors for ILD progression are not well studied.

Objectives: In RA patients with an ILD according to CT scan criteria, identify clinical and biological predictive factors for ILD progression.

Methods: It is a retrospective multicentric study. RA patients with ILD confirmed by a first thoracic CT scan (tCT at T0) were included if ILD progression could be studied with a second CT scan (Tx) done at least 6 months after T0. RA patients were classified in two groups after double tCT evaluation on a blind review of data: those with ILD progression (pILD) and those with a stable ILD (sILD). Predictive factors for tCT ILD progression were studied by comparing these two groups.

Studied data were ILD pattern, classified into typical UIP (Usual Interstitial Pneumonia) or not typical UIP, RA disease characteristics, biological parameters, and RA treatments, collected for each patient at T0 and Tx.

Results: Thirty-six RA patients with ILD confirmed by tCT were included. During an average follow-up of 3 years, 21 RA patients (58.1%) had ILD progression. Predictive factors for ILD progression at T0 are shown in table 1. In pILD group, we observed a significant higher value of the C Reactive Protein (CRP). A CRP rate superior to 20 mg/L was highly associated to ILD progression (Odds ratio=14.4; IC95%(1.36–15.2); p=0.02). Eight patients were treated at T0 by a DMARD different from Methotrexate (MTX). They all were in pILD group (p=0.01). Thirteen patients were treated with MTX at T0. Eight of them were in sILD group (61.5%) and only 5 patients in pILD group (38.5%). Eight patients continued MTX treatment after ILD diagnosis and for one patient, MTX was introduced between T0 and TX. For these 9 patients exposed to MTX after ILD diagnosis, during 27 months on average, no significant ILD progression was observed.

Abstract SAT0088 – Table 1. Predictive factors for tCT ILD progression

Variable	pILD tCT (n=21)	sILD tCT (n=15)	P value
ACPA positivity – no. (%)	15 (70.4)	13 (86.7)	NS
DAS28CRP – pts	3.8±1.42	4.9±1.63	NS
T0 CRP rate – mg/L	29.3±21.1	13.7±18.6	0.03
T0 CRP rate>20 mg/L	OR=14.4; 95% CI (1.36–15.2)		0.02
MTX at T0 – no. (%)	5 (23.8)	8 (53.3)	NS
non-MTX DMARDs (LFN or SSZ) at T0 – no. (%)	8 (38.1)	0	0.01
Biotherapy at T0 – no. (%)	10 (47.6)	6 (40.0)	NS
Corticosteroids at T0 – no. (%)	17 (81.0)	9 (60.0)	NS
MTX exposure between T0 and Tx – no. (%)	5 (55.6)	4 (44.4)	NS
Death – no. (%)	6 (28.6)	3 (20.0)	NS

CI: Confidence Interval; NS: Not Significant; ACPA: Anti-cyclic Citrullinated Peptide Antibody, +>10 U/mL; DAS: Disease Activity Score; LFN: Leflunomide; SSZ: Sulfasalazine; *: p significant

Conclusions: Factors associated with ILD progression were biological inflammation and exposure to a DMARD different from MTX. Exposure to MTX before or after ILD diagnosis was not associated with ILD worsening during the follow up.

Disclosure of Interest: None declared

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SAT0094 **PHYSICAL FUNCTION AND HEALTH RELATED QUALITY OF LIFE IN EARLY RHEUMATOID ARTHRITIS PATIENTS WHO ACHIEVED ONLY LOW DISEASE ACTIVITY COMPARED WITH REMISSION**

H.M. Lam¹, M.C. Wan², L.S. Tam¹ on behalf of The Hong Kong CRYSTAL Study Group. ¹Department of Medicine and Therapeutics, The Chinese University Of Hong Kong, Sha Tin; ²Department of Medicine, Ruttonjee Hospital, Wan Chai, Hong Kong

Background: Current treatment target for rheumatoid arthritis (RA) aims at reaching sustained remission or Low Disease Activity (LDA). It is unclear whether achieving clinical remission is necessary or achieving stable LDA is already sufficient to maintain physical function and Health Related Quality of Life (HRQoL) in patients with early RA.

Objectives: To compare physical function and health related quality of life in early RA patients who achieved sustained remission and those who achieved only sustained LDA.

Methods: Early RA patients with symptom onset <2 years were recruited. Disease activity over time was determined by the cumulative average of Disease Activity Score 28 (caDAS28) and Simple Disease Activity Index (caSDAI) measured at month 3, 6, 9 and 12. Physical function was measured by the Health Assessment Questionnaire Disability Index (HAQ-DI). HRQoL was assessed by the Physical Component Scale (PCS) and Mental Component Scale (MCS) of the 36-Item Short Form Survey (SF-36) and the Euro Quality of Life Five Dimensions Questionnaire (EQ-5D).

Results: A total of 308 (53±13 years old, 80 [26.0%] male) patients completed one year follow up (table 1). 132 (42.9%) and 87 (28.2%) patients achieved caDAS28 remission and caDAS28 LDA while 48 (15.6%) and 156 (50.6%) patients achieved caSDAI remission and caSDAI LDA. Patients who achieved caDAS28 remission have better SF-36 PCS, HAQ-DI and EQ5D at year 1 than patients who achieved only caDAS28 LDA or remained active after adjusting for

other potential confounders at baseline with multivariable regression analysis (Image 1). However, SF-36 PCS, HAQ-DI were not different between caSDAI remission and caSDAI LDA after adjustment for confounders.

Abstract SAT0094 – Table 1

	n=308		p value
	Baseline	Month 12	
Symptom duration, months	9.76±8.29	–	–
VAS pain, 0–10	4.61±2.32	2.41±2.08	<0.001
VAS patient global, 0–10	51.95	25.22	<0.001
	±23.32	±21.47	
VAS physician global, 0–10	50.64	17.77	<0.001
	±26.44	±17.99	
Tender joint count, 0–28	7.36±5.95	1.99±2.98	<0.001
Swollen joint count, 0–28	4.35±3.87	0.86±1.72	<0.001
ESR, mins	57.08	33.94	<0.001
	±34.19	±24.35	
CRP, mg/L	21.84	6.29±11.07	<0.001
	±31.65		
SDAI	24.14	7.78±7.25	<0.001
	±13.22		
DAS28 CRP	4.46±1.25	2.52±0.98	<0.001
csDMARDs, n (%)	134 (43.8%)	282 (92.2%)	<0.001
bDMARDs, n (%)	0 (0%)	11 (4.9%)	<0.001
Prednisolone, n (%)	104 (34.1%)	97 (31.8%)	0.649
NSAID, n (%)	207 (69.4%)	143 (48%)	<0.001
PCS, (0–100)	27.84	39.81	<0.001
	±12.92	±12.65	
MCS, (0–100)	43.46	48.12	<0.001
	±10.60	±11.87	
HAQ-DI, (0–3)	0.82±0.63	0.33±0.43	<0.001
EQ5D, (0–1)	0.67±0.15	0.79±0.16	<0.001

Image 1		Coefficient	p value
PCS at Month 12 (Multivariable analysis)			
caDAS28	LDA vs Remission	-3.64 (-6.67, -0.60)	0.019
	Active vs Remission	-10.54 (-13.63, -7.46)	<0.001
caSDAI	LDA vs Remission	-3.34 (-6.85, 0.18)	0.063
	Active vs Remission	-11.88 (-15.68, -8.08)	<0.001
Adjusted for Sex, age, baseline disease activity and baseline PCS			
MCS at Month 12 (Multivariable analysis)			
caDAS28	LDA vs Remission	0.15 (-2.81, 3.11)	0.920
	Active vs Remission	-3.12 (-6.16, -0.09)	0.044
caSDAI	LDA vs Remission	-2.21 (-5.75, 1.33)	0.220
	Active vs Remission	-5.42 (-9.26, -1.59)	0.006
Adjusted for Sex, age, baseline disease activity and baseline MCS			
HAQ-DI at Month 12 (Multivariable analysis)			
caDAS28	LDA vs Remission	0.12 (0.02, 0.22)	0.024
	Active vs Remission	0.36 (0.26, 0.47)	<0.001
caSDAI	LDA vs Remission	0.10 (-0.02, 0.22)	0.096
	Active vs Remission	0.41 (0.28, 0.54)	<0.001
Adjusted for Sex, age, baseline disease activity and baseline HAQ-DI			
EQ5D at Month 12 (Multivariable analysis)			
caDAS28	LDA vs Remission	-0.06 (-0.10, -0.01)	0.009
	Active vs Remission	-0.13 (-0.17, -0.09)	<0.001
caSDAI	LDA vs Remission	-0.05 (-0.10, -0.002)	0.041
	Active vs Remission	-0.14 (-0.19, -0.09)	<0.001
Adjusted for Sex, age, baseline disease activity and baseline EQ5D			

Conclusions: Patients who achieved sustained caDAS28 LDA had significantly worse physical function and HRQoL than patients who achieved caDAS28 remission.

Disclosure of Interest: None declared

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