Conclusions: The association of baseline CXCL13 levels with RA disease activity was stronger in the early RA population than in the DMARD-IR population. Changes in CXCL13 and sICAM1 correlated significantly with changes in DAS28-ESR at Week 24. However, baseline levels of CXCL13 and sICAM1 did not predict response to TCZ at Week 24, suggesting that although these biomarkers are associated with disease activity, they do not predict response to TCZ in all RA populations.

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THU0132

THE PATIENT GLOBAL ASSESSMENT RATING VARIES MINIMALLY IF USING ARTHRITIS OR GLOBAL HEALTH CONDITION AND AGREEMENT IS HIGH BETWEEN COMMON COMPOSITE DISEASE ACTIVITY MEASURES AND REMISSION CLASSIFICATION USING EITHER: RESULTS FROM A NATIONAL EARLY RA COHORT STUDY

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Background: The patient global assessment (PtGA) is a core domain in several RA composite disease activity (CDA) measures for trials, treat-to-target paradigms and practice, and can be asked differently, either referring to the patient's global health or condition (PtGA-GH), or specifically to arthritis disease activity (PtGA-AR).

Objectives: To assess agreement between PtGA-GH vs. PtGA-AR ratings and commonly used CDA indices calculated using both versions of the PtGA.

Methods: We included classifiable RA patients enrolled in CATCH (Canadian Early Inflammatory Arthritis Cohort) between 2011 and 2017 who simultaneously completed both PtGA-GH and PtGA-AR using a 10 cm VAS (scored 0–10) at each of baseline, 6- and 12 months visits. Differences in descriptive statistics were compared using Wilcoxon-sign rank tests and chi-square tests for baseline characteristics, PtGA ratings and CDA indices. Agreement was assessed using Intraclass correlation coefficients (ICC) for continuous measures and weighted kappa coefficients for categorical measures. Stratified analyses were also performed by age (older >65) and sex.

Results: Of 571 eligible early RA patients, 71% were female, 83% were white, 17% were current smokers, 17% had erosions, and 60% had completed high-school. Baseline mean(SD) age was 55(¹⁵), symptom duration was 5 (3) months and there were 2 (2) comorbid conditions. Agreement between PtGA ratings, composite CDA measures and remission classification by PtGA-GH and PtGA-AR are summarised in table 1. Mean(SD) PtGA-GH ratings were only marginally higher than PtGA-AR ratings and agreement was high between PtGA ratings at baseline and over the first year follow up (all ICCs>0.8). Agreement in CDA scores calculated with either PtGA was higher at baseline and over time (all ICCs>0.95). Concordance in classification of remission using either PtGA was also high at all time points (Kappa's>0.85). Results of stratified analyses showed that relative to men, women tended to report slightly higher differences in PtGA-GH vs. PtGA-AR (all p's<0.0001) but overall agreement in PtGA ratings, CDA scores and remission classification was high and similar in both sexes. Age stratified analyses were similar to those in the whole sample.

Conclusions: Results from this large longitudinal study of early RA patients followed in routine practice settings, showed patients rated the PtGA-GH marginally higher than PtGA-AR but differences had minimal impact on commonly used CDA indices and remission classification. These findings suggest that common composite measures of RA disease activity can be calculated using either the PtGA-GH or PtGA-AR.

Table 1. Agreement in Patient Global Assessment, RA Composite Disease Activity Indices and Classification of Remission calculated using PtGA-GH vs PtGA-AR

Variable	Baseline (N = 571)		6-Months (N = 571)		12-Months (N = 571)	
	PtGA – GH	PtGA – AR	PtGA – GH	PtGA – AR	PtGA – GH	PtGA – AR
Patient Global Assessment (VAS 0-10cm)						
Mean (SD)	5.7 (2.8)	5.2 (2.8)	3.0 (2.7)	2.8 (2.6)	2.7 (2.6)	2.4 (2.5)
Intraclass correlation coefficient	0.80		0.88		0.88	
Composite Disease Activity (CDA) Indices						
DAS28-ESR						
Mean (SD)	5.0 (1.3)	4.9 (1.3)	2.9 (1.4)	2.9 (1.4)	2.6 (1.4)	2.6 (1.4)
Intraclass correlation coefficient	0.98		0.99		0.99	
Remission, Frequency (%)	23 (4%)	23 (4%)	193 (34%)	196 (34%)	243 (43%)	247 (43%)
Kappa (95% CI)	0.93 (0.91, 0.95)		0.97 (0.96, 0.98)		0.98 (0.97, 0.98)	
SDAI						
Mean (SD)	28.7 (14.4)	28.1 (14.4)	10.5 (10.4)	10.2 (10.4)	8.2 (9.8)	7.9 (9.7)
Intraclass correlation coefficient	0.99		0.99		0.99	
Remission, Frequency (%)	6 (1%)	6 (1%)	143 (25%)	155 (27%)	192 (34%)	203 (36%)
Kappa (95% CI)	0.95 (0.93, 0.97)		0.95 (0.94, 0.97)		0.95 (0.94, 0.97)	
CDAI						
Mean (SD)	27.1 (13.7)	26.6 (13.7)	9.7 (10.3)	9.5 (10.3)	7.3 (9.2)	7.0 (9.1)
Intraclass correlation coefficient	0.99		0.99		0.99	
Remission, Frequency (%)	5 (1%)	6 (1%)	158 (28%)	173 (30%)	210 (37%)	215 (38%)
Kappa (95% CI)	0.93 (0.909, 0.96)		0.92 (0.901, 0.94)		0.92 (0.90, 0.94)	
RAPID III						
Mean (SD)	4.6 (2.4)	4.5 (2.3)	2.5 (2.2)	2.4 (2.2)	2.2 (2.1)	2.1 (2.1)
Intraclass correlation coefficient	0.97		0.98		0.98	
Remission, Frequency (%)	52 (9%)	53 (9%)	199 (35%)	206 (36%)	231 (41%)	237 (42%)
Kappa (95% CI)	0.85 (0.81, 0.89)		0.86 (0.83, 0.90)		0.85 (0.815, 0.89)	
Boolean Remission						
N, % Remission (REM)	6 (1%)	7 (1%)	114 (23%)	123 (25%)	159 (33%)	167 (34%)
Kappa (95% CI)	0.99 (0.97, 1.00)		0.95 (0.93, 0.98)		0.94 (0.91, 0.96)	

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THU0134

ULTRASOUND DETECTED TENOSYNOVITIS PREDICTS ARTHRITIS ONSET IN INDIVIDUALS AT RISK OF DEVELOPING RHEUMATOID ARTHRITIS

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Background: The pathophysiological processes leading from musculoskeletal (MSK) complaints to clinically manifest rheumatoid arthritis (RA) are not fully understood. The urgency for imaging and serological markers that predict arthritis development in individuals at risk of RA is of clinical importance.

Objectives: To identify ultrasound (US) markers that can predict arthritis development.

Methods: Patients presenting with MSK complaints and a positive Anti-Citrullinated Protein Antibody (ACPA) test were referred from primary care units to the Rheumatology Unit. Those lacking clinical signs of arthritis, confirmed by absence of synovial hypertrophy with Doppler activity on US examination, were recruited into the Risk-RA prospective program. A total of 66 patients with complete US records were included between years 2015 up to December 2016. Hands and feet, including symptomatic joints were US-evaluated for synovitis, hyperemia and bone erosions. The presence of wrist (compartments 1–6) and finger (flexor and extensor) tenosynovitis, according to OMERACT guidelines were also recorded in all patients. Serum samples from inclusion were analysed on a multiplex immunoassay

Results: 66 Risk-RA patients (85% female, median age 50 years, range 22–82) were included and followed up to arthritis onset (median 8 months, range 1–27), or to the end of year 2017 (median 25 months, range 11–43). 27 patients (41%, 86% female, median age 52 years, range 22–74) developed arthritis. Of these 7 had tenosynovitis detected by US at inclusion and 7 more developed tenosynovitis at follow-up visits (in total n=14). At the time of diagnosis, 20 out of 27 patients presented with both tenosynovitis and synovitis.

A large majority of patients with tenosynovitis (12 out of 14, 86%) and a minority without tenosynovitis (15 out of 52, 29%) developed arthritis, resulting in an increased relative risk of 3.0 (95% CI 1.8–4.8) to develop arthritis for patients presenting with tenosynovitis at baseline or follow-up visits (p=0.001).

Concentrations of the anti-CCP antibodies, anti-CEP antibodies and anti-citrullinated vimentin^{60–75} antibodies tended to be higher in patients with tenosynovitis developing arthritis (n=12, median of 70 AU/ml, range 2–175 for anti-CCP, median of 68 AU/ml, range 0–673 for anti-CEP, median of 53, range 0–644 for anti-vim) than those without tenosynovitis developing arthritis (n=15, median of 35 AU/ml, range 1–100 for anti CCP, median of 12, range of 0–1179 for anti-CEP, median of 29, range 0–332 for anti-vimentin). Same trend was observed when comparing