Medical or Research Professionals / Clinicians - Abstract Submission

Rheumatoid arthritis - prognosis, predictors and outcome

EULAR11-2221

TIME IN REMISSION INFLUENCES RADIOLOGICAL PROGRESSION IN RA PATIENTS

S. Lillegraven [1, 2,*], F. H. M. Prince [1], V. P. Bykerk [1], N. A. Shadick [1], B. Lu [1], M. L. Frits [1], C. K. Iannaccone [1], T. K. Kvien [2], E. A. Haavardsholm [2], M. E. Weinblatt [1], D. H. Solomon [1]

[1]Division of Rheumatology, Brigham and Women's Hospital / Harvard Medical School, Boston, United States, [2]Dept. of Rheumatology, Diakonhjemmet Hospital, Oslo, Norway

I confirm that my abstract complies with the rules and contains orginal data: Yes

My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2011: No

Are you applying for a Travel Bursary?: Yes

Background: Only one of the current remission criteria in rheumatoid arthritis (RA) incorporates time as a factor of remission. However, it is likely that time in remission predicts better outcomes.

Objectives: The aim of this study was to evaluate the relationship between time in remission and radiological damage in RA patients.

Methods: Disease activity was assessed yearly in 535 RA patients from BRASS, a single centre observational cohort with treatment according to clinical practice. X-rays were acquired at baseline and 2 years. Patients were grouped by number of time points in remission during radiological follow-up. Two remission criteria were examined: DAS28<2.6 (calculated with CRP and 4 variables) and the new ACR/EULAR criteria. ACR/EULAR criteria require all of the following to be ≤ 1: CRP in mg/dL, tender / swollen joints and patient global assessment (latter at a 0-10 scale). X-rays were scored according to the Sharp method by trained readers. Smallest detectable change (SDC) for total Sharp score was calculated and used as a cut-off in all analyses. The numbers of progressors and non-progressors in each group were compared by the Pearson’s chi-square test.

Results: The mean (SD) age among all the 535 patients at baseline was 57.6 (12.7) years and the mean disease duration was 14.2 (12.3) years. 442 (83%) were female, 359 (67%) were anti-CCP positive, 205 (38%) used biologic therapy, and 339 (63%) were rheumatoid factor positive. The smallest detectable change for total Sharp score was 6.2 units. The **Table** shows the distribution of patients over remission time points for the criteria. Patients with more than one time point in remission by DAS28 were more frequently classified as non-progressors, when compared to patients with one or less time points in remission (see **Figure A**, percentages on y-axis). A similar trend was found for the ACR/EULAR criteria (see **Figure B**
).

Remission criteria	Never remission	1 time point in remission	2 time points in remission	3 time points in remission
DAS28	289	120	83	43
ACR/EULAR	441	61	30	3

Image/Graph:

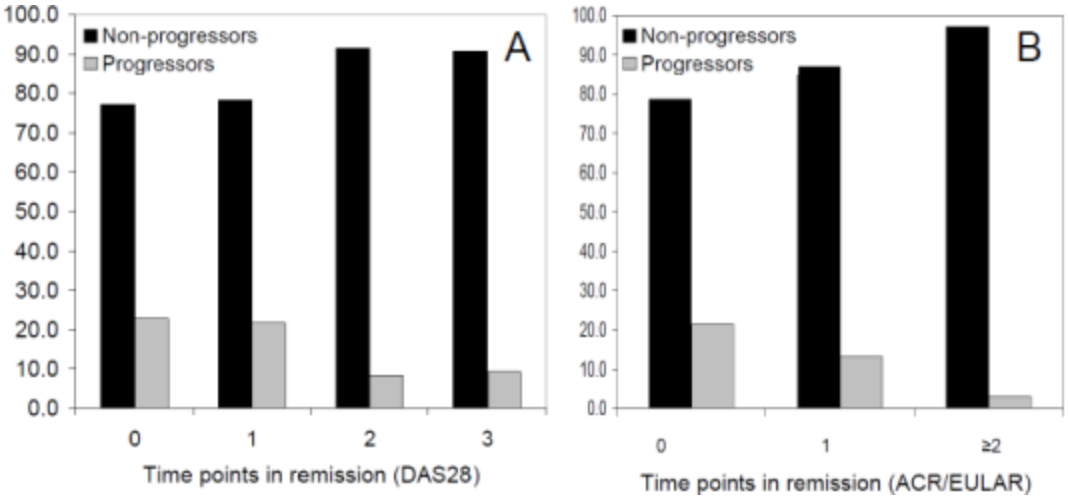

Figure: Non-progressors and progressors, groups according to time points in remission.
A) DAS28, result from chi-square tests: 0 vs. 3 *p*-value = 0.04, 0 vs 2 *p*-value = 0.004, 1 vs 2 *p*-value = 0.01
B) ACR/EULAR, result from chi-square tests: 0 vs. ≥ 2 *p*-value = 0.01.
All other *p*-values ≥ 0.05.

Conclusions: These findings suggest an negative association between time spent in remission and radiological progression, both for DAS28 and the stricter ACR/EULAR criteria.

Disclosure of Interest: S. Lillegraven: None Declared, F. Prince Consultant for: Bristol-Myers Squibb, V. Bykerk: None Declared, N. Shadick Grant / Research support from: Crescendo Bioscience, Biogen Idec, Amgen, B. Lu: None Declared, M. Frits: None Declared, C. Iannaccone: None Declared, T. Kvien: None Declared, E. Haavardsholm: None Declared, M. Weinblatt Grant / Research support from: Crescendo Bioscience, Biogen Idec, Consultant for: Crescendo Bioscience, Biogen Idec, D. Solomon Grant / Research support from: Amgen, Abbott