AN OFFICIAL JOURNAL OF THE AMERICAN COLLEGE OF RHEUMATOLOGY

Arthritis & Rheumatism

VOLUME 65, NUMBER 10 (SUPPLEMENT) OCTOBER 2013

ABSTRACT SUPPLEMENT

2013 ANNUAL MEETING

October 25–30, 2013
San Diego, CA

AMERICAN COLLEGE OF RHEUMATOLOGY
EDUCATION • TREATMENT • RESEARCH

WILEY-BLACKWELL

AMERICAN COLLEGE OF RHEUMATOLOGY
ABSTRACT SUPPLEMENT

AMERICAN COLLEGE OF RHEUMATOLOGY
EDUCATION • TREATMENT • RESEARCH

ASSOCIATION OF RHEUMATOLOGY HEALTH PROFESSIONALS
A DIVISION OF THE AMERICAN COLLEGE OF RHEUMATOLOGY

AMERICAN COLLEGE OF RHEUMATOLOGY
77th Annual Meeting

ASSOCIATION OF RHEUMATOLOGY HEALTH PROFESSIONALS
48th Annual Meeting

October 25-30, 2013
San Diego, CA

Copyright© 2013 by the American College of Rheumatology, Atlanta, GA

The supplement was not financed by profit-making organizations or by organizations representing for-profit interests. The editorial and peer review processes were handled entirely by the American College of Rheumatology (ACR) according to its peer review process for abstracts submitted for presentation at the ACR Annual Meeting.

Table 1. Long-term efficacy over 3 years in patients with early axial spondyloarthritis treated with etanercept. Data at baseline (BL), after one year of treatment with etanercept, after two years and after three years of treatment with etanercept.

	ETN, Baseline	Data after one year of treatment with ETN	Data after two years of treatment with ETN	Data after three years of treatment with ETN
BASDAI (0–10)	5.7 (1.3)	2.5 (2.0)	2.1 (1.8)	2.0 (1.5)
BASFI (0–10)	4.4 (2.1)	2.0 (2.0)	1.6 (1.7)	1.4 (1.3)
ASDAS (0–…)	3.4 (0.8)	1.6 (0.8)	1.4 (0.9)	1.2 (0.7)
CRP (mg/l)	10.5 (13.6)	3.5 (4.6)	3.6 (5.5)	2.9 (5.5)
MRI Spine Score (−69)	1.6 (3.4)	NA	0.7 (1.4)	0.9 (1.8)
MRI SI-joint Score (−24)	4.6 (6.3)	NA	3.5 (6.1)	3.3 (6.0)
ASAS40, %	NA	68.4%	67.4%	75.0%
ASAS PR, %	NA	35.1%	53.5%	42.5%
ASDAS inactive disease, %	NA	38.9%	53.7%	60.0%
BASDAI50, %	NA	64.9%	65.1%	72.5%

Data shown as mean values (standard deviation) unless otherwise stated. Abbreviations: ETN: etanercept; ASAS PR: ASAS partial remission; NA: not applicable; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; ASDAS: Ankylosing Spondylitis Disease Activity Score; ASAS: Assessment of SpondyloArthritis international Society; MRI: magnetic resonance imaging; SI-joint: sacroiliac joint.

Conclusion: There was a constant and sustained clinical response in patients with early axial SpA patients treated with ETN over 3 years. The response in this early axial SpA cohort seems to be better compared to established AS cohorts with a longer disease duration (> 10 years) where BASDAI50 response rates of 47% after 3 years of infliximab treatment [3] and ASAS40 and ASAS partial remission rates of 49% and 27%, respectively after 4 years of etanercept treatment [4] were reported.

1. Song I.-H. et al. Ann Rheum Dis. 2011;70(4):590–596.
2. Song I.-H. et al. Ann Rheum Dis. 2012;71(7):1212–1215.
3. Braun J. et al. Rheumatology 2005;44:670–676
4. Davis JC et al. Ann Rheum Dis. 2008;67(3):346–353

Disclosure: I. H. Song, Pfizer, Merck Sharp Dohme/Schering Plough, AbbVie, 5; **K. G. A. Hermann**, None; **H. Haibel**, Pfizer, Merck Sharp Dohme/Schering Plough, AbbVie, 5; **C. Althoff**, None; **D. Poddubnyy**, Merck Sharp Dohme/Schering Plough, AbbVie, 5; **J. Listing**, None; **A. Weiss**, None; **E. Lange**, Pfizer Inc, 3; **B. Freundlich**, Pfizer Inc, 9; **M. Rudwaleit**, Pfizer, Merck Sharp Dohme/Schering Plough, AbbVie, UCB, 5; **J. Sieper**, Pfizer, Merck Sharp Dohme/Schering Plough, AbbVie, UCB, 5.

1527

Routine Assessment Of Patient Index Data 3 Scores Correlate Well With Bath Ankylosing Spondylitis Disease Activity Index In The Assessment Of Disease Activity and Monitoring Progression Of Ankylosing Spondylitis. Abhijeet Danve[1], Kiana Vakil-Gilani[1], Anusha Reddy[1], Annan Sheffield[2], Alexis Dinno[2] and Atul Deodhar[1]. [1]Oregon Health and Science University, Portland, OR, [2]Portland State University, Portland, OR.

Background/Purpose: Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) is a composite tool unique to measure disease activity in ankylosing spondylitis (AS) just as Disease Activity Score 28 (DAS28) is for rheumatoid arthritis (RA). Routine Assessment of Patient Index Data 3 (RAPID3) is another composite tool that measures physical function, pain and patient global assessment in various rheumatic diseases. It correlates well with DAS28 in RA. If RAPID3 can also be used to assess disease activity in AS it may save time and costs in busy practices. Objectives of this study were to analyze the association between BASDAI and RAPID3 in patients with AS, and to obtain a cut-off value for RAPID3 which correlates with BASDAI of 4 (indicative of high disease activity).

Methods: An electronic medical record search identified 157 patients with AS at our university who were followed between 2007 to 2012. Of these, 113 patients had BASDAI and RAPID3 measured at each visit (intervals ranged from 1 to 57 months). Nonparametric receiver operating characteristic (ROC) determined a cut-off of RAPID3 best correlating with BASDAI ≥ 4. RAPID3 captures both pain and function, but BASDAI measures predominantly pain without function, so multiple linear regression modeled BASDAI with RAPID3 and RAPID3^2 while controlling for visit number. Individual BASDAI and RAPID3 scores and summaries were plotted and compared over time.

Results: Of 113 patients, 75 (66%) were male and 38 (34%) were female, age averaged 44.3 (SD: 13.7), disease duration averaged 8.4 years (SD 9), 77 (61%) had more than one visit, and 36 (39%) had only one. At baseline BASDAI and RAPID3 averaged 4.17 and 3.79 respectively. BASDAI was explained by RAPID3 ($b = 1.218$; s.e. $= 0.110$, $p < 0.001$), RAPID3^2 ($b = -0.045$; s.e. $= 0.014$, $p = 0.002$), and visit number ($b = -0.141$; s.e. $= 0.038$, $p < 0.001$) with adjusted $R^2 = 0.691$. RAPID3 cut-off was 3.33 for 82.4% correct classification, 87.5% sensitivity and 78.8% specificity.

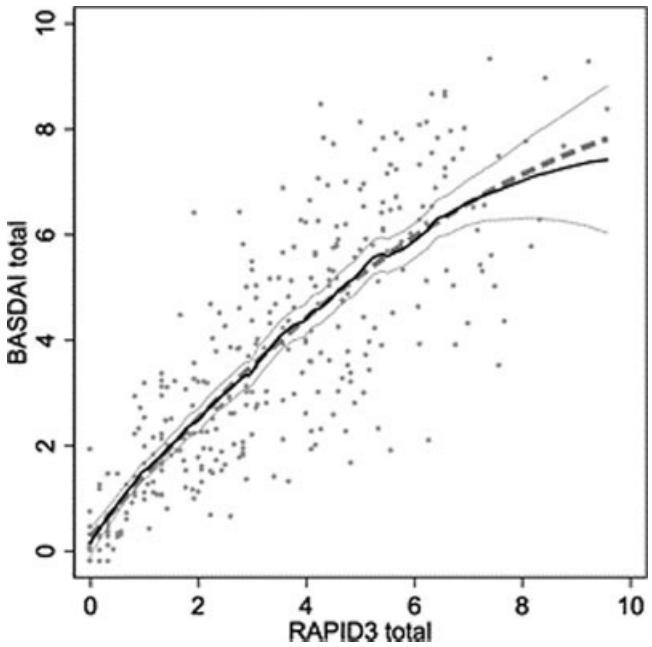

Figure 1. Nonparametric regression of BASDAI on RAPID3 (black with 95% CI in gray) controlling for visit number suggested we model BASDAI as a quadratic function of RAPID3 (thick dashed).

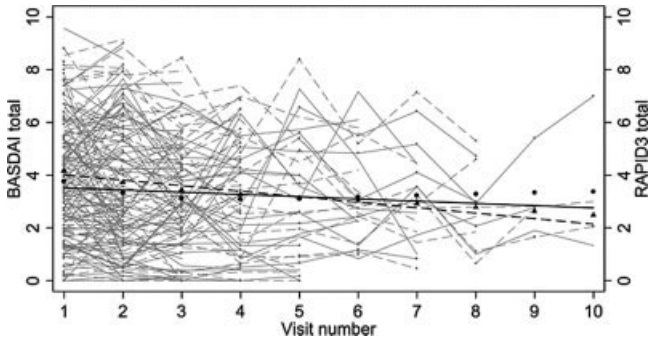

Figure 2. Individual BASDAI (thin dash) and RAPID3 (thin solid); regressions of BASDAI (thick dash) and RAPID3 (thick solid); locally weighted estimate BASDAI (▲) and RAPID3 (■).

Conclusion: RAPID3 correlates well with BASDAI, and along with pain, it provides additional information about patient function. Since it also correlates with measures of disease activity in RA and other rheumatic diseases, RAPID3 could be an attractive measure to be used in busy rheumatology practices.

Disclosure: A. Danve, None; **K. Vakil-Gilani**, None; **A. Reddy**, None; **A. Sheffield**, None; **A. Dinno**, None; **A. Deodhar**, AbbVie, Merck-Sharp-Dohme, Pfizer and UCB, 5, AbbVie, Merck-Sharp-Dohme, Pfizer and UCB, 8, AbbVie, Amgen, Novartis, UCB, 2.

1528

Patient-Tailored Dose Reduction Of Tumor Necrosis Factor-Alpha Blocking Agents In Ankylosing Spondylitis Patients With Stable Low Disease Activity. Suzanne Arends[1], Eveline van der Veer[1], Fleur B.S. Kamps[1], Monique Efde[2], Martha K. Leijsma[1], Hendrika Bootsma[1], Elisabeth Brouwer[1] and Anneke Spoorenberg[2]. [1]University Medical Center Groningen, Groningen, Netherlands, [2]Medical Center Leeuwarden, Leeuwarden, Netherlands.

Background/Purpose: Tumor necrosis factor-alpha (TNF-α) blocking agents are very effective in controlling inflammation and improving clinical assessments in patients with ankylosing spondylitis (AS). In view of the high costs and possible side effects, our aim was to investigate whether dose reduction of TNF-α blocking agents is possible without loss of effectiveness in AS patients in daily clinical practice.