**Validation of the RAPID-3 Questionnaire in a Cohort of Patients with Axial Spondyloarthritis**.

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**Background/Purpose**: RAPID3(Routine Assessment of Patient Index
Data 3) is a simple index which was developed initially for RA but has been
reported informative and many rheumatic diseases. A major advantage of
RAPID3 over disease specific questionnaires and indices is that a single
questionnaire can be completed by all patients with any diagnosis while
waiting to see a rheumatologist, with minimal interference with work flow in
busy clinical settings. We analyzed RAPID3 in patients with axial spondyloarthritis
(axSpA).

**Materials and Methods**: Consecutive patients 18 years of age with
diagnosis of axSpA (modified New York criteria 1987 and / or ASAS 2009)
were included. Socio-demographic data (age, gender, marital status, occupation,
years of education) and disease-related data (disease duration, extraspinal
manifestations, comorbidities, treatments) were recorded. All patients
completed RAPID-3, ASQoL (Ankylosing Spondylitis Quality of Life),
BASDAI and BASFI. Disease global assessment by both patients and
physicians was determined by visual analog scale (VAS). Physical examination
included 44 joint counts and evaluation of enthesitis was performed using
MASES score (Maastricht Ankylosing Spondylitis Enthesitis Score). HLA
-B27, and erythrocyte sedimentation rate (ESR) were collected. Ankylosing
Spondylitis Disease Activity Score, was calculated (SASDAS-ESR, Clin

Rheumatol 2012,31:1599–603). Statistical analysis: Categorical variables were compared using Fisher exact test and continuous variables by means of Mann- Whitney and Kruskal Wallis. Correlation of RAPID3 and other disease variables were assessed by Spearman Rho, and reproducibility using intraclass correlation coefficient (ICC) in a group of patients who completed the questionnaire twice. Finally, we determined the association of the preestablished cut-off values of RAPID-3 used in RA patients and preestablished cut-off values of SASDAS-ESR.

**Results:** 51 patients were studied, 39 males (76.5 %), with a median age of 42 years old (IQR 33–51) and a median disease duration of 20 years (IQR 10.3–27.6). 90.5 % were HLA -B27 positive. Median RAPID-3 was 9 (IQR 3–12.8), BASDAI 3.35 (IQR 1.6–6), BASFI 3.4 (IQR 1.1–5.6), ASQoL 5 (IQR 1–9), SASDAS-ESR 15.9 (IQR 8–22.6), MASES 1 (IQR 0–3). RAPID-3 proved to have an excellent reproducibility (ICC0.97). The median time to complete it was two minutes (IQR 0.91 to 3), and the median time to calculate it ten seconds (IQR 6–15). RAPID-3 was correlated significantly with SASDAS-ESR (Rho: 0.87), BASDAI (Rho: 0.89), BASFI (Rho: 0.8) and ASQoL (Rho: 0.83) and at lower levels with MASES (Rho: 0.44). A significant association was seen between the preestablished cut points of RAPID-3 and SASDAS-ESR (Kappa: 0.5, p 0.001).

**Conclusion:** RAPID-3 is a valid, reliable and reproducible questionnaire to evaluate disease activity and functional capacity in patients with axSpA, and more easily applied in busy clinical settings that axSpA specific-indices.