ANALYSING IMPAIRMENTS IN PHYSICAL PERFORMANCE (AS ASSESSED BY THE AS PERFORMANCE INDEX (ASPI)) IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS

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Background: In patients with axial spondyloarthritides (axSpA) physical functioning is often impaired. The current gold standard to assess physical functioning is self-reported questionnaires (i.e. BASFI), which can be influenced by patients’ subjective feelings. Therefore, a performance-based test-battery was designed to measure physical functioning more objectively: the ankylosing spondylitis (AS) Performance Index (ASPI) [1]. Based on domains taken from BASFI tools were designed to imitate activities of daily living (ADL). Although the ASPI has been evaluated a thorough analysis of the deficits of physical functioning and factors which influence the performance of patients with axSpA has not been performed to date.

Objectives: The aim of the present study assesses the relation between self-reported assessments of physical functioning and actual performance of patients, and to detect influencing factors.

Methods: Consecutive axSpA patients underwent standardized assessments concentrating on the following variables: patient and disease characteristics, patient-reported outcomes (ASDAS, BASFI, BASMI, ASAS Health Index (ASAS HI), PHQ-9, IPAQ), mSASSS and ASPI (ASPI 1: Bending, 2. Putting on socks, 3. Getting up from the floor) [1]. The performance was measured in seconds as time to complete a task based on published instructions. Impairment in physical performance was defined as inability of patients to perform > 1 ASPI test. Spearman Rho correlation was used to compare self-reported functioning and performed physical functioning. Logistic regression analysis was used to identify factors associated with impaired physical performance.

Results: A total of 200 patients (AS 66%, nr-axSpA 34%) was included: 69% males, 44.3 ±12.5 years old, mean symptom duration 17.9 ±12.6 years, BMI 27.2 ±5.5, mean ASDAS 2.5 ±1.1, BASFI 4.0 ±2.7, BASMI 3.5 ±1.8, ASAS HI 7.0 ±4.1, PHQ-9 8.6 ±6.2, and mSASSS (n=157) 10.2 ±18.8. 133 patients were treated with bDMARDs (66.5%). In total 40 patients (22%) were not able to perform one or more ASPI tests. The mean time for bending was 18.5 ±5.5 sec (n=179/90%), for putting on socks 12.8 ±6.4 sec (n=156/78%), and for getting up from floor 6.5 ±5.0 sec (n=187/94%). A significant correlation was found for all three ASPI tests with BASFI (0.5-0.7), ASAS HI (0.4-0.6) and spinal mobility as assessed by BASMI (0.4-0.7). Self-reported physical activity (IPAQ) correlated weakly with ASPI (all 0.2) and structural damage correlated only with the task putting on socks (r=0.3), whereas the other tests did not correlate. Logistic regression showed influence of obesity, spinal mobility and global functioning on actual performance but not of disease activity and self-reported physical function, (Figure 1).

Conclusion: This study confirms a good correlation of the ASPI with standard questionnaires but it showed a substantial floor effect strongly suggesting that additional information on actual performance is needed. Thus, to obtain a complete picture of function and impairments of patients with axSpA the actual performance needs to be also assessed. Moreover, obesity should be addressed as a potential modifying factor contributing to limitation in actual performance.

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