REFERENCE:

[1] Ez-Zaitouni, et al. AR&T 2017;19(1):118.

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THU0232

IS A POSITIVE FAMILY HISTORY OF SPONDYLOARTHRITIS RELEVANT FOR DIAGNOSING AXIAL SPONDYLOARTHRITIS ONCE HLA-B27 STATUS IS KNOWN? DATA FROM THE ASAS, DESIR AND SPACE COHORTS

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Background: Knowledge of a positive family history (according to the ASAS definition (ASAS PFH)) for spondyloarthritis (SpA), in particular a PFH of ankylosing spondylitis (AS) or acute anterior uveitis (AAU), is considered valuable in making a diagnosis of axSpA but clusters with HLA-B27 positivity¹. So a relevant clinical question is if a PFH is still important for making a diagnosis of axSpA if HLA-B27 status is known.

Objectives: To investigate in three independent axSpA cohorts if an ASAS PFH, a PFH of AS or a PFH of AAU contributes to a diagnosis of axSpA in patients with known HLA-B27 status.

Methods: Baseline data of patients suspected of axSpA in the ASAS, DESIR and SPACE cohorts were analysed. In each cohort, univariable logistic regression models were performed with HLA-B27 status and ASAS PFH as determinants and a clinical axSpA diagnosis as outcome. The analyses were repeated in multivariable models with both determinants. Relative risks for axSpA diagnosis were calculated stratified on both HLA-B27 status and ASAS PFH (HLA-B27-/ASAS PFH- as reference). Analyses were repeated with a PFH of AS and a PFH of AAU.

Results: In total, 1964 patients suspected of axSpA were analysed (ASAS n=594, DESIR n=647, SPACE n=723). ASAS, DESIR and SPACE patients had a mean (SD) symptom duration of 85.7 (108.4), 18.2 (10.5) and 13.3 (7.0) months; 54%, 47% and 38% were male; 52%, 58% and 44% were HLA-B27+; 44%, 40% and 35% had sacroiliitis on imaging (MRI and/or radiographs); 62%, 45% and 53% received a clinical diagnosis of axSpA; an ASAS PFH was reported in 23%, 39% and 43%, respectively. In the univariable analysis, HLA-B27 status was significantly associated with an axSpA diagnosis in all three cohorts; ASAS: OR 6.7 (95%CI 4.7–9.8), DESIR: OR 2.1 (95%CI 1.5–2.9), SPACE: OR 6.6 (95%CI 4.7–9.2). An ASAS PFH was univariately associated with an axSpA diagnosis in SPACE (OR 1.5 (95%CI 1.01–2.0)), but not in ASAS (OR 1.4 (95%CI 0.9–2.0)) and DESIR (OR 1.0 (95%CI 0.7–1.4)). In the multivariable models, HLA-B27 status was independently associated with a diagnosis of axSpA but such an independent association was not found for ASAS PFH in any cohort (ASAS: HLA-B27 OR 6.9 (95%CI 4.7–10.2), ASAS PFH OR 0.9 (95%CI 0.6–1.4); DESIR: HLA-B27 OR 2.1 (95%CI 1.5–2.9), ASAS PFH OR 1.0 (95%CI 0.7–1.3); SPACE: HLA-B27 OR 6.6 (95%CI 4.7–9.3), ASAS PFH OR 1.0 (95%CI 0.7–1.4)). In all cohorts, the relative risk of an axSpA diagnosis was highest in HLA-B27+/ASAS PFH- patients (Abstract THU0232 – figure 1).. Similar results were found for a PFH of AS and AAU (data not shown).

Abstract THU0232 – Figure 1. Relative risks of axSpA diagnosis in patients suspected of axSpA stratified on HLA-B27 status and a positive family history according to the current ASAS definition (ASAS PFH) per cohort. HLA-B27-/ASAS PFH- is the reference category (RR=1).

Conclusions: A PFH does not contribute to the likelihood of an axSpA diagnosis in back pain patients with a known HLA-B27 status. This suggests that asking for a PFH of SpA in patients presenting with back pain is redundant if HLA-B27 status is known.

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THU0233

SICK LEAVE AND ITS PREDICTORS IN ANKYLOSING SPONDYLITIS: LONG-TERM RESULTS FROM THE OUTCOME IN ANKYLOSING SPONDYLITIS INTERNATIONAL STUDY

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Background: Sick leave (SL) among patients with ankylosing spondylitis (AS) is a relevant outcome for individuals and for society. Disease related factors, contextual factors, but also SL itself may be risk factors for future adverse work outcome. To reveal predictors of SL over time, longitudinal studies are necessary. If SL itself is an independent predictor for further SL, this further underpins initiatives in clinical care to support worker participation.

Objectives: To investigate the occurrence of AS-related SL over 12 years and to explore which factors predict or explain SL.

Methods: Data from employed patients from the Outcome in Ankylosing Spondylitis International Study were used. At each visit, patients indicated the occurrence of SL (yes/no) in the previous inter-assessment period. Cox regressions were used to predict the hazard for a first episode of SL using baseline predictors. Generalised estimating equations (GEE) were used to investigate the association between SL and (time-lagged) predictors. To investigate whether SL predicts future SL, SL in the first year was included as covariate in a separate GEE analysis. Due to collinearity between ASDAS, BASDAI and BASFI, separate multivariable models were computed.

Results: 139 patients (76% males, mean [SD] age 38.7 [10.0] years) were at risk for SL during a mean (SD) period of 7.9 (3.9) years. Among the 88 patients (63%) who ever reported SL, 62 (70%) reported SL at more than 1 assessment. In separate multivariable Cox baseline predictors models, baseline ASDAS (HR 1.67 [95%CI 1.23–2.28]), BASDAI (HR 1.33 [95%CI 1.18–1.51]) and BASFI (HR 1.17 [95%CI 1.02–1.34]) were associated with increased hazard of SL, but only in male patients with a low level of education. In separate multivariable time-varying GEE models, 1 year time-lagged ASDAS (OR 1.48 [95%CI 1.07–2.03]), BASDAI (OR 1.31 [95%CI 1.15–1.49]) and BASFI (OR 1.31 [95%CI 1.16–1.47]) were associated with SL, but only in patients with a low level of education. Further adjustment for job type did not lead to different results, and job type itself was not significantly associated with SL. SL during the first year predicted SL over time (OR: 2.62–8.37 in different models, all p<0.05), independently of educational level, disease activity or physical function.

Conclusions: Disease activity and physical function predict and explain variation in SL, but only in patients with a low level of education. Prior SL results in future SL, and SL should be considered an actionable factor for support to prevent future adverse work outcome. Research into which SL is beneficial with regard to recovery and which SL is a risk for work disability is needed.

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THU0234

BMI DOES NOT AFFECT CLINICAL OUTCOME IN PSORIATIC ARTHRITIS PATIENTS TREATED WITH TIGHT CONTROL STRATEGY

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Background: Psoriatic arthritis (PsA) is characterised by several comorbidities; among these obesity and overweight have a major impact on patients' quality of