BACKGROUND: Chronic back pain (CBP) of the inflammatory type (IBP) is frequently reported in axSpA but also in the general population.

OBJECTIVES: We evaluated a recently proposed two-step referral system for early recognition of axSpA (concentrating on patients ≤45 years with chronic back pain who present with buttock pain, improvement by movement, psoriasis, positive testing for HLA-B27) in primary care and compare it to other combinations of symptoms and SpA-related items.

METHODS: Consecutive patients ≤45 years who presented in PC to general practitioners or orthopedic surgeons working in PC with back pain lasting ≥2 months who had not been diagnosed before received questionnaires (Q1) relevant for the referral process. Thereafter, the PC physician asked the same questions in a separate questionnaire (Q2), including the decision on HLA-B27 testing. All patients were then referred to two experienced rheumatologists in a tertiary center who performed a complete workup including clinical, laboratory and imaging with radiographs and magnetic resonance imaging (MRI) examinations before their final diagnosis of axSpA or non-SpA (Q3).

RESULTS: A total of 320 patients (mean age 35.9±10.3 years) was recruited. The proposed referral strategy (prS) was fulfilled by 127 patients in Q1 (39.7%), 160 in Q2 (50%), 102 by both, Q1 and Q2 (31.9%), and 83 with either Q1 or Q2 (25.9%). Overall, 47 patients were diagnosed with axSpA by the rheumatologist at Q3 (14.7%), 66% of which were male, mean age 34.7±10.1 years. 70.2% HLA-B27 positive, mean CRP 0.8±1.4mg/dl, mean ASDAS 3.2±0.8, mean BASDAS 5.1±2.0. Of these, 37 patients had fulfilled the prS in Q1 or Q2 (78.7%), and 31 in both Q1 and Q2 (66%), respectively. In the latter, the HLA-B27 prevalence was significantly higher (27/31, 87.1%) as compared to patients diagnosed with axSpA at Q3 but who did not fulfill the prS in Q1 and Q2 (5/16, 31.3%) (p<0.001).

The specificity and sensitivity of the prS was 76.7% and 69.2% in Q1, 78.7% and 62.2% in Q2, and in both, Q1 and Q2, 66% and 74%, respectively. AxSpA patients correctly identified by the prS in Q1 and Q2, were significantly more frequently positive for HLA-B27 and CRP and fulfilled more frequently the ASAS definition of inflammatory back pain in Q3.

CONCLUSION: A simple two-step referral strategy using a combination of clinical features for identifying axSpA patients in PC without laboratory and imaging examinations was confirmed in a large population from daily practice. This strategy performed well as selection for referral at the patient and PC physician level. This work was supported by an unrestricted Grant by Novartis Pharma Gmbh, Germany.

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