RHEUMATOLOGY

Letters to the Editor

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Performances of inflammatory back pain criteria in axial psoriatic arthritis

Rheumatology key message

- The inflammatory back pain criteria have limitations in axial PsA with moderate sensitivity.

SIR, The frequency of axial involvement in PsA is reported in a range of 24–78% [1, 2]. Additionally subclinical axial involvement, defined by the lack of clinical features for axial disease but the presence of spondylitic changes or sacroiliitis, is ~20% [3]. Despite the high frequency of axial disease there is not a consensus on how to screen for spine involvement in PsA. Tools for spine disease in PsA are usually developed for AS initially, followed by studies to validate in PsA. However, there are major differences, such as axial PsA (axPsA) is usually considered to be a milder disease then AS, with fewer limitations, and the literature suggests that axPsA should be considered as a separate entity [4]. To date, the performance of different criteria has not been tested in PsA. In this study we aimed to test the performances of different inflammatory back pain (IBP) criteria in a real-life setting, taking physicians' judgement of axPsA, having sacroiliitis fulfilling the modified New York criteria or a positive MRI for sacroiliitis as a gold standard.

The Psoriatic Arthritis Registry of Turkey (PsART) was established in 2014 and includes 32 rheumatology centres across Turkey. Ethics approval for the PsART was obtained and all patients gave written informed consent prior recruitment. No additional ethical approval was required for this study. PsART data are collected using a web-based system (www.trials-network.org) following the recommendations of a survey led by the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis. The details of the registry have been previously explained in detail [5]. The presence of axPsA was based on the physician's judgement and IBP was investigated in these patients using the Calin, Assessment of SpondyloArthritis international Society (ASAS) and Berlin criteria separately [6–8]. There are no specific imaging requirements for PsART beyond local practice for individual centres. If plain radiographs were available, physicians were encouraged to send images for central reading. In case of MRI scans, the assessment by the local radiologist was recorded. Different sets of IBP criteria were tested for their sensitivity to detect axial disease according to the physician. Further analysis was made according to gender.

Data from the first 1195 patients recruited to PsART were analysed [774 women (64.8%)], 415 (35%) of which were classified as having axPsA by the physician. A total of 314 of these patients had the IBP questionnaires completed and 264 patients (84%) fulfilled at least one set of IBP criteria. Among the different IBP features, duration of pain (>3 months), morning stiffness and being <40 years old at onset were the most frequent findings, with nocturnal awakening in the second half of the night being the least frequent finding (Table 1). The sensitivity of each criteria for IBP was comparable for the Berlin and Calin criteria and lower for the ASAS criteria, especially in women (Table 1). There was moderate agreement between different criteria ($\kappa = 0.71$–0.74). Forty-nine (15.7%) subjects were classified as having axial disease according to the rheumatologist despite not fulfilling any of the IBP criteria, the majority of which were women (21.1% women *vs* 8.2% men; $P = 0.002$). For the IBP criteria and

TABLE 1 Positivity of each item and different sets of criteria for IBP

Item	*n* (%) (*N* = 314)
Duration of back pain >3 months	276 (87.9)
Morning stiffness of > 30 min duration	272 (86.6)
Age at onset <40 years	248 (79)
Insidious onset	245 (78)
Improvement with exercise	241 (76.8)
Not improvement with rest	235 (74.8)
Pain at night (with improvement upon getting up)	161 (51.3)
Alternating buttock pain	158 (50.3)
Nocturnal awakening (second half of the night only)	151 (48.1)
Calin criteria	247 (78.7)
Women (*n* = 179)	130 (72.6)
Men (*n* = 135)	117 (86.7)
ASAS criteria	187 (59.6)
Women (*n* = 179)	95 (53.1)
Men (*n* = 135)	92 (68.1)
Berlin criteria	232 (73.9)
Women (*n* = 179)	121 (67.6)
Men (*n* = 135)	111 (82.2)
Patients with sacroiliitis on radiographs or MRI (*n* = 170)	
Calin criteria	135 (79.4)
Women (*n* = 96)	71 (74)
Men (*n* = 74)	64 (86.5)
ASAS criteria	107 (62.9)
Women (*n* = 96)	57 (59.4)
Men (*n* = 74)	50 (67.6)
Berlin criteria	128 (75.3)
Women (*n* = 96)	68 (71.9)
Men (*n* = 74)	60 (81.1)

sacroiliitis on imaging, complete agreement between the Calin IBP criteria and imaging [147/207 (71%)] was slightly higher than the Berlin [142/207 (68.6%)] and ASAS criteria [134/207 (64.7%)]. For 170 patients that were positive for sacroiliitis on imaging, the sensitivity of the ASAS criteria was again lowest (62.9%), being even lower for women (59.4%) (Table 1).

There are similarities between the spine disease in PsA and AS that have led to the concept of lumping these under the same umbrella, but at the same time there are also well-known differences, such as axial disease being less severe in PsA, differences in radiographic features and corresponding functional impairment [4]. To the best of our knowledge, this is the first study that has investigated different IBP criteria in axPsA. This study shows that the IBP criteria have limitations in axPsA. Among different criteria, the Calin criteria performed better for being more frequently positive in patients who had the diagnosis of axPsA similar to having a better agreement with imaging. The low sensitivity was especially seen in women. Approximately half of the women were still diagnosed as having axPsA despite not fulfilling the ASAS IBP criteria. The low sensitivity of the questionnaires may be one of the reasons why patients' axial disease is not diagnosed clinically despite having the imaging findings. As a limitation, our data only included patients with axPsA and not any patients with mechanical back pain, therefore our data focus on the sensitivity and not the specificity.

In conclusion, the IBP criteria have limitations in axPsA with moderate sensitivity and may lead to underdiagnosing axPsA, especially with a poorer sensitivity in women.

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Serum sickness-like disease after switching to biosimilar infliximab

Rheumatology key message

- Serum sickness-like disease can be a complication of the switch from original to biosimilar infliximab.

SIR, a 60-year-old man was followed in our rheumatology outpatient clinic for a seronegative, non-erosive RA. The disease had begun 15 years before. He was treated with oral MTX 10 mg/week, prednisone 5 mg/day and infliximab (IFX) 5 mg/kg/8 weeks. He had received nine IFX infusions with good tolerance and efficacy. IFX was his third line of biotherapy; he had previously received etanercept and tocilizumab, which were stopped because of secondary inefficacy and an adverse effect (cytopenias), respectively. As a result of a clinical remission and an ongoing trial in the hospital, it was decided with the patient to switch from original IFX to CT-P13 (Inflectra®, Hospira France, 23-25 avenue du Docteur Lannelongue, 75014 Paris; biosimilar IFX) using the same dosage and frequency of administration.