

Psoratic arthritis criteria evaluation: CASPAR and Modified CASPAR

Sirs,

Psoriatic arthritis (PsA) has been evaluated as a separate disease since 1964 by the American College of Rheumatology-ACR (1). The first and the simplest Moll & Wright criteria (2) were followed by a number of classification criteria, but none of them survived enough to be widely used. CASPAR criteria (Classification criteria for Psoriatic Arthritis), are derived from a large international study, with reported sensitivity of 91.4% and specificity 98.7% (3). In order to improve the utility of the CASPAR criteria, Pederson *et al.* proposed the CASPAR criteria modification (Modified CASPAR criteria) (4) (Table I).

Our study comprised 356 patients: 120 with PsA and two control groups, diagnostically consistent: 123 patients with rheumatoid arthritis (RA) and 113 with non-inflammatory musculoskeletal symptoms (NIMS). Patients were taken consecutively from the hospital registry of the Rheumatology Institute, Belgrade in a three-year period. They were interviewed and examined according to the standard clinical protocol, including detailed anamnesis and physical examination required by the CASPAR and Modified CASPAR criteria. Every patient was examined independently by two experienced rheumatologists-clinicians. Psoriatic skin disease, psoriatic nail involvement and the entire digit involvement (dactylitis), was verified either at the time of examination, or documented previously in medical records by rheumatologist or dermatologist. Rheumatologists agreed upon each patient's diagnosis in a meeting, and this was accepted as the gold standard. Sensitivity was calculated as percentage of PsA patients who satisfied, and specificity as percentage of RA or NIMS patients who did not satisfy the investigated criteria sets.

CASPAR criteria were met by 110/120 patients with PsA and Modified CASPAR by 114/120 patients, so Modified CASPAR criteria showed advantage in sensitivity over the CASPAR (Fig. 1). Among those patients, 98.2% had psoriasis. Two patients with PsA sine psoriasis (neither at the time of examination nor documented in personal anamnesis) met both CASPAR and Modified CASPAR criteria (both with negative RF, current dactylitis and juxta-articular new bone formation). CASPAR and Modified CASPAR criteria were not satisfied by six patients: five did not have psoriasis (neither at the time of examination, nor documented in personal history), and one had only examination-verified psoriasis. Four more patients with psoriasis documented in their personal anamnesis, but not at the time of examination (plus negative RF), satisfied Modified CASPAR, but not the CASPAR criteria (Table II).

As for the control groups, one patient in

Table I. CASPAR and Modified CASPAR classification criteria for PsA.

CASPAR criteria (3)

Inflammatory articular disease (joint, spine or entheses) with ≥ 3 points from the following:

1. Current psoriasis (psoriatic skin or scalp disease present today as judged by rheumatologist) (2 points).
2. Personal history of psoriasis obtained from patient, family doctor, rheumatologist or dermatologist (if current psoriasis not present) (1 point).
3. Family history of psoriasis (if personal history of psoriasis or current psoriasis not present) (1 point).
4. Psoriatic nail dystrophy observed on current physical examination (1 point).
5. A negative test for rheumatoid factor (1 point).
6. Current dactylitis (swelling of entire digit) (1 point).
7. History of dactylitis recorded by rheumatologist (if current dactylitis not present) (1 point).
8. Radiological evidence of juxta-articular new bone formation (1 point).

Modified CASPAR criteria (4)

Inflammatory articular disease (joint, spine or entheses) *at current examination or previously documented by a rheumatologist with ≥ 3 points from the following:*

1. Current psoriasis *or previously documented by a rheumatologist or dermatologist* (2 points).
2. Personal history of psoriasis obtained from the patient (if current psoriasis not present) (1 point).
3. Family history of psoriasis (if personal history of psoriasis or current psoriasis not present) (1 point).
4. Psoriatic nail dystrophy observed on current physical examination *or documented by a rheumatologist or dermatologist* (1 point).
5. A negative test for rheumatoid factor (1 point).
6. Current dactylitis or history of dactylitis recorded by rheumatologist (if current dactylitis not present) (1 point).
7. Radiological evidence of juxta-articular new bone formation (1 point).

Fig. 1. Sensitivity and specificity of the CASPAR and Modified CASPAR criteria.

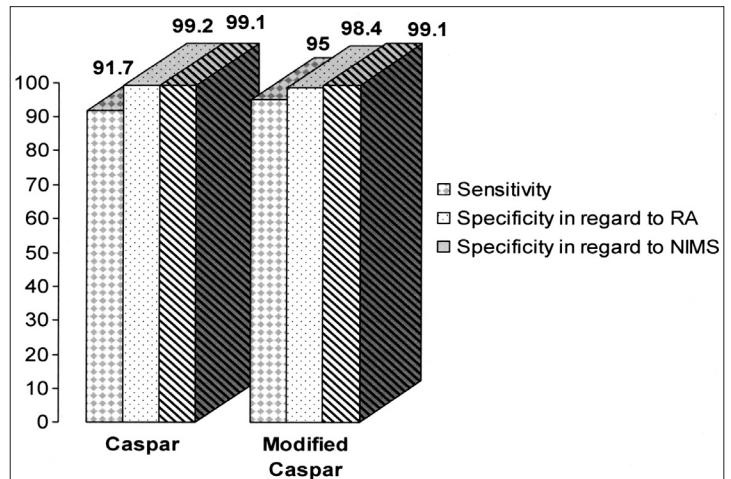


Table II. Individual items of the Classification of Psoriatic Arthritis (CASPAR) criteria (3) and Modified CASPAR criteria (4).

Item	PsA (n=120)	RA (n=123)	NIMS (n=113)
CASPAR criteria number, n. (%)	110 (91.7)	1 (0.8)	1 (0.9)
Modified CASPAR criteria, n. (%)	114 (95.0)	2 (1.6)	1 (0.9)
Evidence of psoriasis, n. (%)	113 (94.2)	4 (3.2)	3 (2.7)
Current psoriasis, n. (%)	106 (88.3)	1 (0.8)	1 (0.9)
Personal history of psoriasis, n. (%) [*]	7 (9.1)	3 (2.4)	2 (1.8)
Family history of psoriasis, n. (%) ^{**}		2 (1.6)	3 (2.7)
Psoriatic nail dystrophy, n. (%)	67 (55.8)	1 (0.8)	1 (0.9)
Negative test for rheumatoid factor, n. (%)	107 (89.2)	9 (7.3)	105 (93.8)
Evidence of dactylitis, n. (%)	65 (54.2)	4 (3.2)	
Current dactylitis, n. (%)	47 (39.2)		
History of dactylitis, n. (%) ^{***}	18 (15)	4	
Juxta-articular new bone formation, n. (%)	65 (54.2)	5 (4.1)	8 (7.1)

^{*}Every variable is given for each of the classification item, for the entire group of patients.

^{*}Positive personal history of psoriasis if current psoriasis not present, documented in clinical records, signed by rheumatologist or dermatologist.

^{**}Positive family history of psoriasis if current psoriasis or psoriasis in personal history not present, reported by patient.

^{***}History of dactylitis, recorded by rheumatologist, if current dactylitis not present.

Letters to the Editors

RA group with current psoriasis (plus psoriatic nail dystrophy) met both CASPAR and Modified CASPAR criteria. The other patient with psoriasis documented in personal history met Modified CASPAR criteria, but not CASPAR. One patient in NIMS group with negative RF, positive family history of psoriasis and juxtaarticular new bone formation met both CASPAR and Modified CASPAR criteria. Therefore, little advantage in specificity for the CASPAR criteria over Modified CASPAR in regard to RA group (Fig. 1).

In other studies, sensitivity of the CASPAR criteria rated from 86% (5) and 89.7% (6) to 98.2% (7), 99.1% (8) or even 100% (9). Specificity of the CASPAR criteria was reported to be around 99% (3, 7, 9).

Since psoriatic skin and joint disease has a remitting-relapsing course and may sometimes enter a complete remission, it would seem plausible to include previous history of psoriatic nail and skin disease reported by dermatologist or rheumatologist as equal as current psoriasis (10).

In conclusion, both CASPAR and Modified CASPAR criteria showed high sensitivity, little advantage for the Modified CASPAR. In difference from the CASPAR, Modified CASPAR criteria did not score differ-

ently current and previous psoriatic skin and nail disease. Specificity was high for both CASPAR and Modified CASPAR criteria in regard to NIMS, as well as in regard to the RA group.

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