Psoriatic arthritis, a chronic inflammatory arthritis, usually is seronegative for rheumatoid factor and is associated with cutaneous psoriasis

ABSTRACT: The diagnosis of psoriatic arthritis (PsA) often is missed, partly because patients may present with inflammatory spinal pain, tendinitis, enthesitis, or dactylitis rather than a “true arthritis.” If PsA is not identified early and managed appropriately, progressive joint damage with deformities and disability may result. Several classification criteria have been proposed, but none have been widely accepted or validated. Given issues with earlier criteria, the ClASsification criteria for Psoriatic ARthritiS (CASPAR) study was started to develop a new set of validated classification criteria. The CASPAR criteria permit the diagnosis of PsA in spite of low rheumatoid factor positivity. They offer classification criteria that are simple and easy to use with a high degree of specificity and good sensitivity.

Psoriatic arthritis (PsA), a chronic inflammatory arthritis, usually is seronegative for rheumatoid factor (RF) and is associated with cutaneous psoriasis. Initially thought to be rheumatoid arthritis (RA) occurring simultaneously with psoriasis, PsA was not recognized as a distinct clinical entity by the American College of Rheumatology (ACR) until 1964. Although between 5% and 30% of patients who have psoriasis are reported to have accompanying PsA, the diagnosis of PsA often is missed in primary care physicians’ and dermatologists’ offices. A major reason is that patients with PsA may present with inflammatory spinal pain, tendinitis, enthesitis, or dactylitis rather than a “true arthritis.” If PsA is not identified early and managed appropriately, progressive joint damage with deformities and disability may result. The quality of life in patients who have PsA is reported to be much worse than in those who have only psoriasis. The advent of effective new therapies, such as biologic agents, has made widely accepted and validated classification criteria imperative for PsA research trials to be meaningful.

This is the fifth article in a series on new or modified classification and diagnostic criteria for various rheumatologic conditions. The first article (“New Classification Criteria for RA,” The Journal of Musculoskeletal Medicine, November 2011, page 422) discussed recent revisions in RA classification criteria. The second article (“New Axial and Peripheral Spondyloarthritis Classification Criteria,” The Journal of Musculoskeletal Medicine, December 2011, page 454) reviewed the new classification criteria for the spondyloarthopathies. In the third article (“New and Modified Fibromyalgia Diagnostic Criteria,” The Journal of Musculoskeletal Medicine, February 2012, page 13), we discussed the new ACR diagnostic criteria for fibromyalgia syndrome and their modification as survey criteria. The fourth article (“The Sydney Classification Criteria for Definite Antiphospholipid Syndrome,” The Journal of Musculoskeletal Medicine, April 2012, page 73) focused on revised classification criteria for this syndrome. In this article, we describe the classification criteria for PsA.

The Need for New Criteria

The Moll and Wright Classification Criteria for PsA, proposed in 1973, are the oldest and best known. The first classification criteria derived from patient data were proposed by Fourni and colleagues in 1999. Several other classification criteria had been proposed over the years, but none have been widely accepted or validated. With the Moll and Wright criteria, patients who had cutaneous psoriasis and musculoskeletal involvement, such as dactylitis, enthesitis, and tendinitis, could not be classified as having PsA. The need for new criteria was exemplified by the ability of Fourni’s criteria to classify a patient who had psoriasis but not arthritis as having PsA because of a family history of PsA, RF negativity, or HLA-B17 gene positivity.

The lack of universally accepted criteria had hampered clinical research in PsA—variability in case identification led to heterogeneous study populations, making interpretation and application of study results difficult. In addition, the exact prevalence of PsA had been difficult to estimate because accepted diagnostic and classification criteria were lacking. Given these issues, the ClASsification
criteria for Psoriatic ARthritis (CASPAR) study was started in 2004 to develop a new set of validated classification criteria.

**The Process of Developing New Criteria**

A large, prospective, international study was conducted to meet the following 2 objectives: (1) to compare the performance of existing criteria more rigorously and (2) to see whether more accurate criteria might be derived from direct examination of data. Patients were consecutively enrolled from more than 30 rheumatology clinics in 13 countries—588 patients with PsA and 536 controls with other forms of inflammatory arthritis matched for approximate disease duration. Control patients included those with RA (70% of controls), ankylosing spondylitis, and undifferentiated arthritis.

Data were collected prospectively to compare existing classification criteria and derive new classification criteria for PsA. More than 50 variables were evaluated, including clinical, radiographic, and laboratory data. Expert physician diagnosis of PsA was considered the gold standard; the diagnosis was confirmed with 2 sophisticated statistical analyses. The features most discriminating between the controls and the patients with PsA, determined by multivariate statistical analysis, were (1) the presence of psoriasis (current, history of, or family history of), (2) psoriatic nail dystrophy, (3) a negative RF test result, (4) dactylitis (history of or current), and (5) radiographic evidence of juxta-articular new bone formation. These features were identified as being independently predictive of PsA and were used to create the new CASPAR criteria in 2006. Only current psoriasis was weighted more heavily than the other features (valued at 2 points instead of 1).

### TABLE

The CASPAR classification criteria for PsA

Note that a patient must have inflammatory articular disease (joint, spine, or enthesal) before the CASPAR criteria are applied. To meet the criteria, a patient also must have at least 3 points from the 5 categories (Table).

The new CASPAR criteria had a sensitivity of 0.914 and a specificity of 0.987. Several earlier classification criteria also were applied to the collected data. Of these, the method of Vasey and Espinoza performed the best, with a sensitivity and specificity of 0.972 and 0.960, respectively. Although the sensitivity was slightly better with the Vasey and Espinoza method, the specificity is improved with the CASPAR criteria.

### How the New Criteria Differ From the Old

Many classification criteria have been proposed, but none were statistically derived from as large a prospective study as were the CASPAR criteria. The CASPAR criteria use some elements of the earlier criteria, but only those found to be independently predictive of PsA were included in the final set. Juxta-articular new bone formation was included as a feature of PsA in the CASPAR criteria but not in any previous criteria.

### Advantages and Potential Uses of the New Criteria

The original diagnostic criteria of Moll and Wright probably are the simplest and the most frequently used in studies to date. They require the presence of psoriasis or a history of psoriasis/nail disease, seronegativity for RF, and an inflammatory arthritis in 1 of the 5 typical presentations for PsA. They were designed to be sensitive and not too specific, but this aspect may have led to misclassification of patients with seronegative RA and concurrent psoriasis as having PsA. It also may have led to the
exclusion of those who were seropositive for RF with PsA. The new CASPAR criteria permit the diagnosis of PsA in spite of low RF positivity. In addition, the inclusion of dactylitis and enthesitis has made possible the classification of a patient as having PsA in the absence of true arthritis. Also, because family history is included, the absence of psoriasis is permitted as long as other typical features of PsA are present. The CASPAR criteria offer classification criteria that are simple and easy to use, with a high degree of specificity and good sensitivity.

References:
REFERENCES


Source URL: http://www.diagnosticimaging.com/psoriatic-arthritis/classification-criteria-psoriatic-arthritis-caspar

Links: