Ultrasonography Underused by Rheumatologists

BY MELINDA TANZOLA
Contributing Writer

Interoperator variability exists even among experts, said Dr. Wolfgang A. Schmidt, also a member of the working party. In his studies of ultrasonography experts, Dr. Schmidt of the Medical Center for Rheumatology in Freiburg, Germany, found that interpretations were most variable at the feet and most consistent at the knee.

Dr. Schmidt noted, “I can assure you that if you do the same experiment on radiologists, you will have the same problem. … [A]ll of these imaging modalities have interobserver variability.”

Cardiologists and gynecologists do their own sonography, and rheumatologists need to learn the technique. The ultrasonography working party offers 3-day training courses once or twice each year for interested rheumatologists, said Dr. Swen. Ultrasonography is less expensive than magnetic resonance imaging and bone scans, and it can be quite sensitive, according to Dr. Walter Grassi.

Shift Toward Standardization, Specificity

Phase 1 of the CASPAR study was to present the classification criteria to rheumatoid arthritis researchers. The group developed the criteria and proposed that they be tested in 30 clinics in 13 countries. The 71% of the patients who met the criteria had rheumatoid arthritis, 14% had anklyosing spondylitis, 7% had undifferentiated arthritis, 3% had connective tissue disorders, and 5% had other diseases.

The researchers collected data on more than 100 clinic and hospital features. They also performed x-rays of the spine, hands, and feet. Samples were analyzed for rheumatoid factor, human leukocyte antigen, and anti-cyclic citrullinated peptide antibody.

For the first iteration of the criteria, the researchers performed a classification and regression tree analysis of existing criteria. The presence of two findings—a history of psoriasis and current psoriasis—was 97% sensitive and 96% specific. It’s very hard to beat that,” Dr. Helliwell noted. By multivariate logistical regression analysis, the top predictive features were negative rheumatoid arthritis factor, current dactylitis, a history of dactylitis, and a history of psoriasis. The results of those two analyses were combined to produce the CASPAR criteria.

Until now, the diagnosis of psoriatic arthritis has been widely based on the Moll-Wright criteria developed in 1973 (Semin. Arthritis Rheum. 1973;3:55-78). These criteria require an inflammatory arthritis (peripheral arthritis and/or sacroiliitis or spondylitis), the presence of psoriasis, and the absence of serologic tests for rheumatoid factor. The Moll-Wright criteria are considered simple and sensitive; however, they are not very specific, suggesting that some seronegative rheumatoid arthritis patients with coincidental psoriasis are misclassified as rheumatoid arthritis, Dr. Helliwell said.

“Clearly we need criteria to help us to distinguish this group that may be confusing because of the seronegative rheumatoid arthritis factor and coincidental psoriasis,” he said. Another group that is hard to diagnose comprises those who meet all other criteria for psoriatic arthritis but who have not yet developed psoriasis.

Enthesis Finding on MRI Central to Psoriatic Arthritis

BY NANCY WALSH
New York Bureau

Glasgow, Scotland — Involvement of the distal interphalangeal joint is a common feature of both psoriatic arthritis and osteoarthritis, but a new study using high-resolution magnetic resonance imaging has shown that the local microanatomical environment in psoriatic arthritis is quite distinct, according to Dr. Alyn Tan.

The study included 10 patients with psoriatic arthritis (PsA), 10 with osteoarthritis (OA), and 10 normal controls. The distal interphalangeal joint structures, including ligaments, tendons, and entheses, were imaged using a 1.5-T MRI scanner with a 23-mm diameter microscopy coil and producing T-weighted spin-echo images. Dr. Tan wrote in a poster session at the annual meeting of the British Society for Rheumatology.

PsA was characterized by significant inflammation of ligaments and tendons, along with involvement of the corresponding enthesal insertions. Extracapsular enhancement and nail bed changes were striking, as was diffuse bone edema, particularly of the distal phalanges, Dr. Tan said.

This condition was present in 80% of the PsA patients, often without cartilage damage.

Psoriatic Arthritis Diagnostic Criteria Shift Toward Standardization, Specificity

BY KERRI WACHTER
Senior Writer

STOCKHOLM — The search continues for sensitive and specific classification criteria for psoriatic arthritis.

At an international conference on psoriasis and psoriatic arthritis, the latest results were presented from the classification criteria for psoriatic arthritis (CASPAR) group, an international team of leading psoriatic arthritis researchers. The group has initiated a prospective study to evaluate existing diagnostic criteria as well as to derive new, more accurate criteria, said Philip S. Helliwell, Ph.D., of the rheumatology and rehabilitation research unit at the University of Leeds (England). The group’s efforts are modeled on those of the OMERACT (Outcome Measures in Rheumatology) core set for rheumatoid arthritis.

Although clinical and radiologic evidence supports psoriatic arthritis as a separate disease, there’s no consensus on diagnostic criteria. Such standardization would enhance research efforts by making patient comparisons easier. Although there are several sets of classification criteria for diagnosing psoriatic arthritis, only one was derived statistically from patient data, Dr. Helliwell said.

A diagnosis according to CASPAR criteria requires established inflammatory articular disease and a score of at least 3 points from the following features: current psoriasis (2 points), history of psoriasis but no evidence of psoriasis (1 point), family history of psoriasis but no evidence of psoriasis (1 point), dactylitis (1 point), joint/nail bone formation (1 point), negative rheumatoid factor (1 point), and nail dystrophy (1 point). These diagnostic criteria were specific (0.99) and fairly specific (0.91) for the diagnosis of psoriatic arthritis.

The criteria were derived using data collected prospectively from 588 patients with psoriatic arthritis and from 536 controls with other inflammatory arthritis diagnosis at 30 clinics in 13 countries. Of the controls, 71% had rheumatoid arthritis, 14% had anklyosing spondylitis, 7% had undifferentiated arthritis, 3% had connective tissue disorders, and 5% had other diseases.

The researchers collected data on more than 100 clinical and histological features. They also performed x-rays of the spine, hands, and feet. Samples were analyzed for rheumatoid factor, human leukocyte antigen, and anti-cyclic citrullinated peptide antibody.

For the first iteration of the criteria, the researchers performed a classification and regression tree analysis of existing criteria. The presence of two findings—a history of psoriasis and current psoriasis—was 97% sensitive and 96% specific. It’s very hard to beat that,” Dr. Helliwell noted. By multivariate logistical regression analysis, the top predictive features were negative rheumatoid arthritis factor, current dactylitis, a history of dactylitis, and a history of psoriasis. The results of those two analyses were combined to produce the CASPAR criteria.

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