

Hand OA Atlas Moves Scoring System Forward

BY CHRISTINE KILGORE

FROM ANNUAL EUROPEAN CONGRESS OF RHEUMATOLOGY

Investigators who are developing an ultrasound “atlas” of hand osteoarthritis hope that their collection of images will aid in the development of a standardized ultrasonographic scoring system for the disease.

The investigators’ descriptive study of ultrasonographic findings in 127 patients builds upon the development several years ago of a preliminary ultrasonographic scoring system for the features of hand osteoarthritis.

In the prior effort, reported in 2008 in the *Annals of the Rheumatic Diseases*, experts led by Dr. Helen Keen

VITALS

Major Finding: Osteophytosis was the dominant pathology in more than 3,700 hand joints examined by ultrasound in patients with hand OA.

Data Source: A descriptive imaging study of 127 patients with hand OA.

Disclosures: Dr. Hammer was supported by an unrestricted grant from Abbott Laboratories; this grant was given after the study was completed, however, according to Mr. Mathiessen. Mr. Mathiessen said they have no disclosures or conflicts of interest to report related to this study.

ing tool for hand OA, and “move toward validating the preliminary semiquantitative scoring system” for use in epidemiologic and outcome studies, said Alexander Mathiessen, a medical student at the University of Oslo.

The 127 patients who were examined with ultrasound had a mean age of 69 years and symptom duration of approximately 18 years. Two sonographers performed the assessments together and, using a 0-3 scale, achieved consensus in the scoring of osteophytes, gray-scale synovitis, and power Doppler in 30 joints: the first carpometacarpal (CMC), first through fifth metacarpophalangeal (MCP), first through fifth proximal interphalangeal (PIP), second through fifth distal interphalangeal (DIP), dorsal view, from radial to ulnar side bilaterally.

Osteophytosis has been the dominant pathology in the approximately 3,700 joints examined thus far, with a prevalence of 53%. All patients had osteophytes in at least four joints. In joints with osteophyte pathology, the mean scores were 1.8 for CMC, 1.2 for MCP, 1.8 for PIP, and 2.1 for DIP joints.

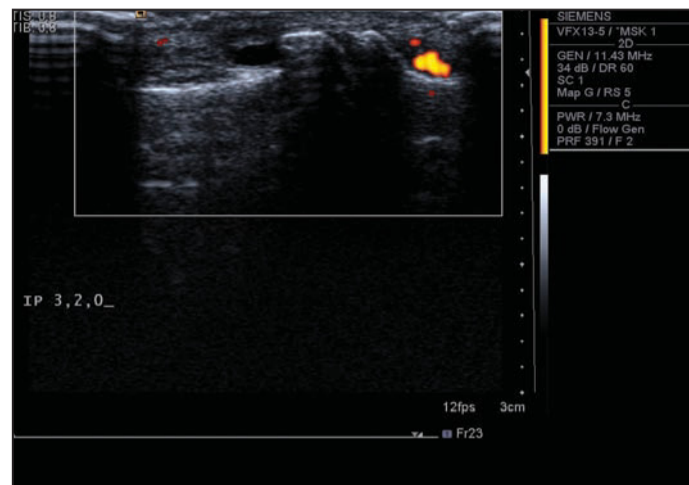
The imaging study, which Mr. Mathiessen performed with Dr. Hilde B. Hammer at the Diakonhjemmet Hospital in Oslo, revealed a large degree of symmetry between hands—a finding that confirms what other studies have shown, he noted.

“Hand osteoarthritis is remarkably symmetric,” said Mr. Mathiessen. “The odds ratio of having an osteophyte in one joint if you have it in the same opposite joint was 35.1, indicating significant concordance.”

And in another finding that “needs further evaluation,” the investigators found that in 84% of the patients, the sum osteophyte score was similar or greater

of the University of Leeds (England) reached consensus on which ultrasound-detectable abnormalities—synovitis (gray scale and power Doppler) and osteophytes—are important and feasible for inclusion in a scoring system.

The new atlas of characteristic images of osteoarthritis in finger joints takes the effort a step further, “so that we can realize the full potential of ultrasound” as an imag-



Ultrasound images of hands affected by osteoarthritis, such as the Doppler image above, compose the OMERACT atlas.

in the dominant hand than in the nondominant hand. “It [may be] enough to scan only the dominant hand,” he observed.

Gray-scale synovitis and power Doppler activity were found in approximately 16% and 2% of the joints, respectively.

“We found synovitis in one-third of the CMC joints, though, and in about 20% of the small PIP and DIP joints,” Mr. Mathiessen said. “Power Doppler was frequent only in the CMC joint, with a prevalence of 14%.”

The findings might indicate “that the focus should be on osteophytes and synovitis,” he added. “Based on our findings, I’m not sure about the role of power Doppler in a final scoring system. . . . On the other hand, though, this feature is important for differentiating osteoarthritis against other joint diseases.”

ASK THE EXPERT

New Tool Streamlines Fibromyalgia Screening

From a clinical perspective, fibromyalgia is a diagnostic nightmare. The often-debilitating chronic pain condition has no definitive cause, signs, tests, or treatments. Adding to the confusion is the fact that the symptoms—which include but are not limited to muscle tenderness, headaches, stomach aches, depression, and fatigue—overlap with those of many other conditions. And the current diagnostic criteria, which were published by the American College of Rheumatology nearly 20 years ago, were developed by rheumatologists principally for research and classification purposes, and as such are difficult to apply in daily clinical practice, according to Dr. Serge Perrot of Hôtel-Dieu Hospital in Paris.

Several assessment tools have been developed to address some of the limitations of the ACR criteria. However, “these tools include only items related to widespread pain and fatigue, with no items focusing on other major dimensions or symptoms” of fibromyalgia syndrome, Dr. Perrot and colleagues in the French Rheumatic Pain Study Group (CEDR) recently wrote in their description of the development and validation of a new fi-



SERGE PERROT, M.D.

bromyalgia screening measure, called FiRST (Fibromyalgia Rapid Screening Tool). Developed by CEDR, FiRST is a six-item, self-completed questionnaire “with excellent discriminative value” for the detection of fibromyalgia syndrome in individuals with diffuse chronic pain, said the authors (*Pain* 2010 May 18 [doi:10.1016/j.pain.2010.03.034]).

In this column, Dr. Perrot discusses the challenges involved in diagnosing fibromyalgia and how FiRST can help.

FAMILY PRACTICE NEWS: What are the main clinical challenges in the diagnosis of fibromyalgia?

Dr. Perrot: Tender-point examination (called for by the ACR 1990 criteria) is difficult, and it requires physician training. Because general practitioners are usually not trained

to perform this examination, they typically do not make the diagnosis of fibromyalgia syndrome (FMS). Patients with suspected FMS must therefore wait for a rheumatologist or pain specialist to confirm the diagnosis. This delay in the diagnosis and management of the condition increases patients’ anxiety and confusion, and leaves them without treatment for unnecessarily long periods of time.

FPN: How does FiRST address these concerns?

Dr. Perrot: The FiRST assessment tool is a simple self-questionnaire that aims to detect FMS in patients with chronic pain conditions. Patients are asked to answer yes or no to six items related to the nature, location, and severity of their pain; other physical sensations (such as numbness or tingling associated with their pain); co-occurring digestive problems, urinary problems, headaches, or restless legs; and the impact of the pain on quality of life. The questionnaire can be administered by all physicians and takes only 2 minutes to complete. Clinical examination is not needed. This will allow early FMS diagnosis and management.

FPN: What are some of the advantages of FiRST, compared with existing assessment tools?

Dr. Perrot: FiRST is a screening test, and as such it should not be compared with the ACR 1990 criteria, nor to the newly published 2010 ACR criteria for FMS. Following a positive assessment, existing criteria will still be used to confirm the FMS diagnosis. Importantly, the FiRST questionnaire includes not only pain and fatigue, as previous screening tools have, but also pain descriptors and comorbid conditions that are specific to fibromyalgia. Also, FiRST has been shown

to be a very sensitive and specific screening test, with a sensitivity of 90.5% and of specificity of 85.7%.

FPN: What are some of the limitations of FiRST?

Dr. Perrot: Because FiRST is a screening test and not a diagnostic tool, a positive screen for FMS is not a diagnosis. It still requires further confirmation by a specialist, based on current FMS diagnostic criteria.

FPN: What has been the reaction among clinicians to FiRST, and is it likely that it will see widespread clinical adoption?

Dr. Perrot: At this time, several groups of physicians involved in FMS management have adopted the FiRST questionnaire. The tool seems to be well accepted, both by physicians and patients, because it is so easy to administer in daily clinical practice. And because of its discriminative properties, FiRST could be used in the research setting, particularly for epidemiologic studies of FMS, which are very much needed.

—Diana Mahoney

DR. PERROT is a professor of medicine and on the staff of the rheumatic pain clinic at Hôtel-Dieu Hospital, Paris. He has served as a speaker and consultant for Pierre Fabre Médicament.