

MRI Improves Accuracy of Spondyloarthritis Dx

Three sets of criteria include the option of diagnosing sacroiliitis with MRI.

BY AMY ROTHMAN
SCHONFELD

FROM A RHEUMATOLOGY
MEETING SPONSORED BY
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NEW YORK – When magnetic resonance imaging is used instead of plain x-rays in patients with early inflammatory back pain, the diagnostic accuracy for spondyloarthritis jumps from 25% to 70%, according to Dr. Maxime Dougados.

“Seventy-five percent of the time, you cannot make the diagnosis with plain x-rays,” said Dr. Dougados, who is profes-

sor of rheumatology at the Paris-Descartes University/Cochin Hospital in Paris and the president-elect of EULAR. He presented the Ira Goldstein Memorial Lecture at the meeting, focusing on spondyloarthritis (SpA).

Dr. Dougados presented the as yet unpublished results from the DESIR cohort, a large French national multicenter database of long-term follow-up of 708 patients presenting with early inflammatory back pain that was initiated by the French Society of Rheumatology.

Patients were recruited be-

VITALS

Vitals: The diagnostic accuracy for spondyloarthritis was 70% when MRI is used.

Data Source: A long-term prospective follow-up of 708 patients with early, inflammatory back pain who were part of the French DESIR cohort.

Disclosures: Dr. Dougados has received grants for research projects and/or honorarium fees for participation at advisory boards/symposiums from Abbott, Bristol-Myers Squibb, Merck, Pfizer, Sanofi, and UCB.

tween December 2007 and April 2010 if they had inflammatory back pain lasting more than 3 months and less than 3 years. The group will be followed for 10 years in the ongoing study.

At baseline, the mean age of the study population was 35 years, 54% were female and 57% were HLA-B27 positive (Joint Bone Spine 2011 March 30 [doi: 10.1016/j.jbspin.2011.01.013]).

With use of radiological sacroiliac changes, the diagnosis was “obvious” for 26% of the cohort, “doubtful” for 21%, and “normal” for 53%.

“These results indicate that at the first clinical visit, the interview is very important to pick up other clinical symptoms,” said Dr. Dougados. In fact, about 80% were found to have nonaxial clinical manifestations, including articular peripheral involvement, enthesopathy, dactylitis, anterior chest wall pain, uveitis, or psoriasis.

With MRI, 70% of the cohort were determined to have “obvious” sacroiliitis, about 20%

had a “doubtful” diagnosis and about 10% were thought to be “normal.”

“These results indicate that you can detect early abnormalities of the sacroiliac joint on MRI even if x-rays are normal,” he said.

According to Dr. Dougados, these imaging findings fit well with recent results from the DECLIC study, in which 163 rheumatologists were asked to diagnose 472 patients with early inflammatory back pain, including 161 patients with spondyloarthritis, according to four different sets of criteria.

The specificity of the modified New York criteria, which relies on radiographic signs of sacroiliitis (unilateral grade III or bilateral grade II), fell well below that of the modified Amor criteria, the modified ESSG (European Spondyloarthropathy Study Group) criteria, and the ASAS (Assessment of Spondyloarthritis International Society) criteria.

The latter three criteria in-

clude the option of diagnosing sacroiliitis with MRI.

In the new classification criteria from the ASAS, separate criteria are listed for patients with axial SpA with and without peripheral manifestations and patients with peripheral manifestations only.

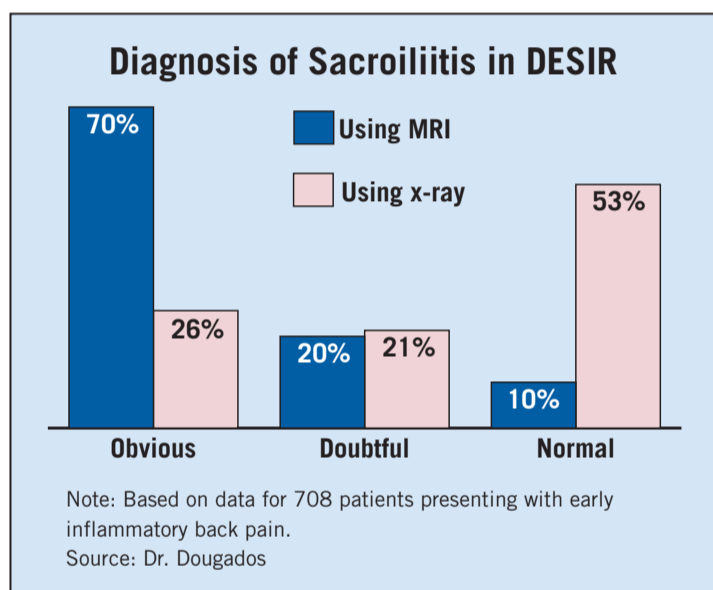
For axial SpA, one diagnostic pathway requires sacroiliitis on imaging plus one or more SpA feature. Sacroiliitis on MRI is given as much weight as is sacroiliitis on radiographs (Best Pract. Res. Clin. Rheumatol. 2010;24:589-604).

The other pathway requires HLA-B27 positivity plus two or more SpA features.

In patients who have peripheral manifestations only, the requirements include peripheral arthritis, enthesitis or dactylitis plus one or more spondyloarthritis features, including sacroiliitis on imaging.

Dr. Dougados also spoke about recent findings showing that patients with SpA were more likely to have distinct non-inflammatory spinal MRI lesions (known as Fatty Romanus lesions) than were patients with degenerative arthritis or spinal malignancy (Ann. Rheum. Dis. 2010;69:891-94).

“As MRI is becoming more important, rheumatologists should be trained to interpret MRIs,” he said. “You don’t need to be a specialist in radiology.” ■



Prevalence, Diagnosis of Ankylosing Spondylitis Still Elusive

BY SHARON WORCESTER

EXPERT ANALYSIS FROM A SYMPOSIUM
SPONSORED BY THE AMERICAN
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CHICAGO – The prevalence of ankylosing spondylitis is greatly underestimated, and diagnosis is typically delayed, according to Dr. Michael Weisman.

A 1998 report by the National Arthritis Data Workgroup stated that there are an estimated 2.1 cases of ankylosing spondylitis (AS) per 1,000 individuals older than age 15 years. But this widely cited estimate that 0.21% of the U.S. population has AS was based on classification criteria that required radiographic evidence of AS, said Dr. Weisman, who is director of the division of rheumatology and professor of medicine at Cedars-Sinai Medical Center in Los Angeles.

“This was not a real epidemiologic survey. This was a grossly underestimated prevalence of AS” in the United States, he said, explaining that the researchers relied on the modified New York criteria for AS, which requires not only clinical features, but radiographic changes.

The problem is that radiographic changes take time, and there is a long preradiographic stage in AS during which patients have symptoms for years before developing x-ray changes in sacroiliac joints.

“So when you use modified New York criteria for classification, and you misuse it for diagnosis, you’re going to grossly underestimate the frequency of this disease in the population,” he said.

Additionally, studies consistently show that there is an average delay in diagnosis of at least 7-9 years for AS, he said, noting that this is because AS is hidden from obvious view, imaging techniques are needed to make the diagnosis, and the disease is often not suspected because of “the whole ubiquitous idea of low back pain in the population” (Curr. Opin. Rheumatol. 2000;12:239-47).

Also, that study showed that diagnosis

in women is delayed even more than in men, and other studies indicate that women have largely been underdiagnosed, Dr. Weisman said, noting that he was taught during training that AS occurs in a 10:1 male:female ratio. The latest data show that it is more like 3:1.

So how many people really have AS? There have been very few prevalence

‘When you use modified New York criteria for classification, and you misuse it for diagnosis, you’re going to grossly underestimate the frequency of this disease in the population.’

studies, but the latest compilation of data shows that newer prevalence estimates for AS and spondyloarthritis in general vary widely, from 0.52% to 1.3% in the United States,

which suggests that the prevalence may be higher than the current estimated 0.6% prevalence of rheumatoid arthritis in the United States. The estimates of AS/spondyloarthritis in other parts of the world are even higher. The estimated prevalence in Norway, for example, ranges up to 6.7%.

A marked north/south gradient also

exists in prevalence, and it mirrors the north/south gradient of HLA (human leukocyte antigen)-B27 gene prevalence in the indigenous populations worldwide, which is “tremendously variable.” HLA-B27 positivity is very high in northern areas, along with a higher prevalence of AS in northern areas.

These findings can be helpful for improving diagnosis, he said.

To make a correct – and earlier – diagnosis, use your perspective on inflammatory back pain, Dr. Weisman advised.

“Inflammatory back pain will be, for you, the greatest clue to be able to hone in on this diagnosis,” he said.

Onset at a young age, relatively long duration of pain, associated morning stiffness, awakening in the middle of the night, and no improvement with rest are classic signs of inflammatory back pain. In fact, at least one study has shown that among those with chronic back pain, about 5% will have AS; but in those with inflammatory back pain the probability is tripled to about 14%-15%. Adding other features can further improve diagnosis.

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