Cardiovascular Risk in RA Echoes Type 2 Diabetes

BY BRUCE JANCIN
Denver Bureau

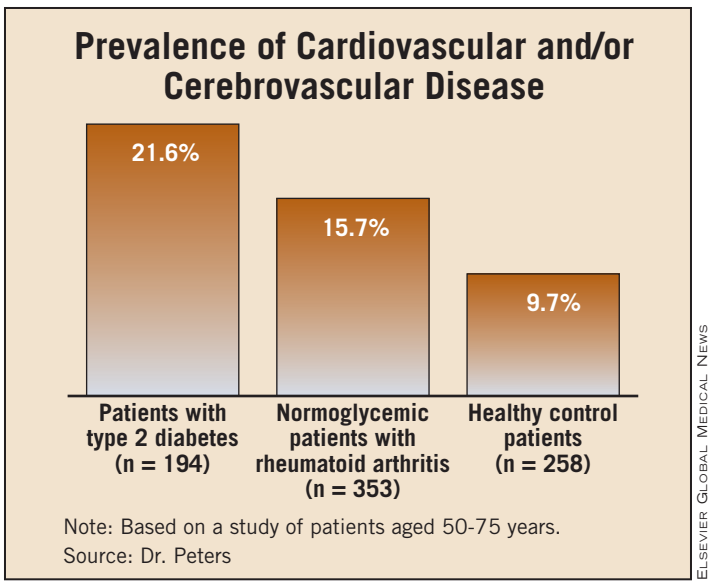
PARIS — Annual cardiovascular risk screening is recommended for all patients with rheumatoid arthritis, according to the European League Against Rheumatism Task Force on Cardiovascular Risk Management in Rheumatoid Arthritis.

Furthermore, annual screening should be considered for patients with ankylosing spondylitis or psoriatic arthritis as well, according to the task force. The task force urged treatment of all traditional cardiovascular risk factors and aggressive suppression of systemic inflammation in these patients, according to task force member Dr. Mike J.L. Peters, speaking in an interview.

These task force recommendations, to be published by year's end, were announced at the annual European Congress of Rheumatology. Included will be guidance on employing a multiplier or conversion factor in conjunction with the Systematic Coronary Risk Evaluation (SCORE)—the European equivalent of the Framingham Risk Score—in order to more accurately reflect the increased cardiovascular risk of patients with inflammatory arthritis.

Speaking during a separate presentation at the meeting, Dr. Peters reported on his own data showing that the increased cardiovascular risk of rheumatoid arthritis patients is similar in magnitude to that associated with type 2 diabetes.

This new finding that the cardiovascular risk associated with rheumatoid arthritis (RA) resembles that seen in patients with diabetes supports arguments for aggressive risk factor management in the RA population, especially given that type 2 diabetes is considered a coronary heart disease equivalent, meaning that diabetic individuals have roughly the same risk of future cardiovascular events as do patients who've already had an acute MI, according to Dr. Peters of Free University Medical Center, Amsterdam.



ELSEVIER GLOBAL MEDICAL NEWS

Dr. Peters reported on 353 normoglycemic patients with RA of an average 7 years' duration and varied severity, 194 type 2 diabetic patients, and 258 healthy controls. All were aged 50-75. The prevalence of objective cardio- and/or cerebrovascular disease was 21.6% in patients with type 2 diabetes, 15.7% in those with RA, and 9.7% in controls.

After adjustment for differences in age, gender, and rates of the traditional cardiovascular risk factors, the prevalence of cardiovascular disease was found to be 85% greater in diabetic patients than controls, and 51% greater in the RA group than controls. The rates in diabetic and RA patients were not significantly different.

Audience member Dr. Daniel H. Solomon urged a cautious interpretation of the Dutch findings.

"When we think about diabetes as a risk factor for cardiovascular disease, we understand that some of the management techniques—aspirin, statins, other preventive measures—have been tested specifically in diabetic populations. But at this point, we have almost no data on the benefits of these sorts of preventive measures in a rheumatoid population," said Dr. Solomon of Harvard Medical School, Boston.

"I'd be very careful about concluding that similar preventive measures would be beneficial in rheumatoids. We just don't have those data. I don't disagree that they might be, but I don't think we have enough data to make an evidence-based statement about that," he said.

"I totally agree," Dr. Peters replied.

In a separate presentation, Dr. Peters reported that the rate of major cardiovascular events in 329 Dutch RA patients followed prospectively for nearly 3 years was 8.6%, compared with 4.3% in 1,852 controls drawn from the general population.

The RA patients had higher rates of smoking, hypertension, and some other traditional cardiovascular risk factors, as has been reported in other studies. But after adjustment for age, gender, and traditional risk factors, the cardiovascular event rate in the RA population remained twofold greater than in the general population, according to Dr. Peters. ■

MRI Can Expedite Earlier Diagnosis of Ankylosing Spondylitis

BY BRUCE JANCIN
Denver Bureau

PARIS — Earlier diagnosis of ankylosing spondylitis has emerged as a high priority—and MRI is vital in accomplishing it, according to Dr. Martin Rudwaleit.

The average interval between onset of symptoms of ankylosing spondylitis (AS)—chiefly inflammatory low back pain—and the time of diagnosis is 6-10 years. This is unacceptable given the pain and progressive disability patients are subjected to during these long years of delay, he said.

Moreover, AS, a disease with an estimated prevalence of about 0.5%, has its onset predominantly in young adulthood. Symptoms occur by age 30 in 80% of cases and by age 45 in 95%. So the lengthy delays in diagnosis, which often involve extensive work absenteeism and deteriorating quality of life, take place during what would ordinarily be among the most productive years of life.

A major reason for the long delay in diagnosis is that the standard diagnostic criteria for AS used for nearly the past quarter century—the 1984 modified New York criteria—require unequivocal radiographic evidence of sacroiliitis. Because x-ray changes are a late-disease manifestation, they typically don't appear until years after symptom onset.

Long before the classic radiographic findings are evident, however, active inflammatory lesions are present on MRI, stressed Dr. Rudwaleit, a rheumatologist at the University Hospital Charité, Berlin.

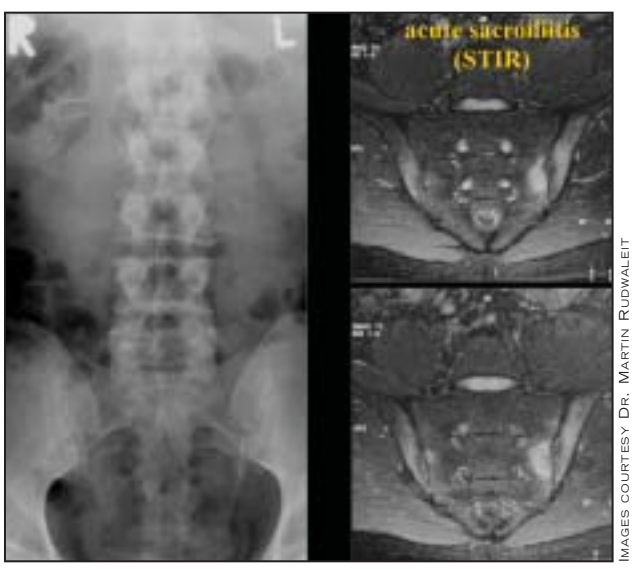
Bone marrow edema located periarticularly, adjacent to the sacroiliac joint space, indicates active inflammatory osteitis. This is the most important MRI finding in establishing the diagnosis of AS, he added.

Another big reason for the long delay in diagnosis is that the core clinical features required under the modified New York criteria—namely, restricted spinal mobility and restricted chest expansion—are, like the radiographic changes, late-disease manifestations. Similarly, the distinctive postural changes often considered pathognomonic for AS aren't apparent until the disease is well along.

Dr. Rudwaleit and coworkers have proposed a new diagnostic algorithm for AS. It focuses on identifying disease in the preradiographic stages and relies upon MRI and HLA-B27 testing (Ann. Rheum. Dis. 2004;63:535-43). The criteria are now undergoing minor alterations in a multicenter validation study, in which 650 patients with chronic low back pain have been enrolled to date.

"We think diagnosis of axial spondyloarthritis without radiographic changes is feasible in daily clinical practice," he said at the annual European Congress of Rheumatology.

As part of the effort to develop improved diagnostic criteria, he and his coworkers have devised a simpler method for differentiating inflammatory from mechanical low back pain. The distinction is critical because inflammatory low back pain is the earliest and most important symptom of AS. The diagnostic challenge arises from the fact that AS accounts for only 5% of chronic low back pain.



IMAGES COURTESY DR. MARTIN RUDWALEIT

STIR MRIs (right top, bottom) show inflammation next to the sacroiliac joints (white) not seen on x-ray (left).

By analyzing the clinical histories of 101 patients with confirmed AS and 112 others with mechanical low back pain, Dr. Rudwaleit and coworkers identified four parameters that best discriminated between the two: morning stiffness of more than 30 minutes' duration, improvement of back pain with exercise but not with rest, nighttime awakening due to back pain during only the second half of the night, and alternating buttock pain. When any two of these four criteria were met, the sensitivity and specificity for inflammatory back pain were 70% and 81%, respectively (Arthritis Rheum. 2006;54:569-78).

But the presence of inflammatory back pain doesn't suffice to make the diagnosis of AS; that requires additional criteria, ideally including a positive MRI, which has the greatest sensitivity and specificity of the various diagnostic criteria, according to Dr. Rudwaleit.

He and his coworkers have developed a method of calculating AS probability derived by multiplying the likelihood ratios (LRs) of the individual AS parameters. For example, a positive MRI carries an LR of 9.0 based upon its high sensitivity and specificity. If a patient has a positive MRI plus inflammatory back pain, which has an LR of 3.1, plus heel pain, with an LR of 3.4, and elevated acute phase reactants, with an LR of 2.5, the resultant LR product is 237, indicating a greater than 90% probability of AS.

The MRI findings are so important in diagnosing early AS that Dr. Rudwaleit considers a clearly positive MRI to be a prerequisite for anti–tumor necrosis factor therapy. Anti-TNF agents have proved highly effective in AS. There is hope that their early use can prevent or at least retard disease evolution. The definitive evidence for this isn't in yet, but it's an exciting possibility that has added further impetus to efforts to diagnose AS earlier. ■