Clinical Response Tracked IgA RF

The correlation between gender and response to anti-TNF-α treatment has recently been reported from national registers in Italy and Norway, with a proposed explanation for the finding being that TNF inhibition may induce upregulation of aromatase. This could increase the level of anti-inflammatory androgens and improve outcome (Arthritis Care Res. 2006;54:1046-1051).

Anti-CCP levels also were followed in the study. The effects of treatment on this marker have been controversial, with previous studies providing conflicting results. Some reports have suggested that anti-CCP levels fall with treatment, at least in early disease. But in this cohort of patients with advanced disease anti-CCP levels did not decrease with therapy.

While rheumatoid factor and anti-CCP antibodies share some important features, such as being present before disease onset, they appear to represent two distinct antibody systems that are differently induced and probably differently regulated in rheumatoid arthritis (RA), as Dr. Montecucco said.

Clinical experience has left no doubt that IgM RF is reduced with effective treatment, but until now, it has not been known whether serum IgA RF also decreases with treatment. Dr. Montecucco said. Nor has it been known if reduction in IgA titters would correlate with clinical response. Until now there have been no reliable serologic markers to predict which patients are less likely or absolutely unlikely to benefit from treatment with TNF-α-blocking agents. Approximately one-third of patients do not respond to treatment with these expensive and potentially toxic drugs.

Several lines of evidence suggest that rheumatoid factor IgA may be as important as IgM. For example, high titters of IgA isoform of rheumatoid factor are associated with early erosive disease.

The synovial proliferation extended into the medial and lateral gutters (see arrows in first image). The patient also had early marginal bony erosion (see arrow in second image) affecting the medial tibial plateau. Together, the synovial proliferation and bony erosion indicated rheumatoid arthritis (RA).

The images were obtained using a cartilage-sensitive sequence used for evaluating articular cartilage.

“We do this for all patients routinely,” said Dr. Potter. The technique allows the clinician to compare pre- and post-treatment images. When they occur, the MRI findings were correlated with patient’s clinical response, which Dr. Potter used as a guide when adjusting treatment.

“I always use clinical judgment, but the MRI findings can help.”

The relationship between the level of IgA in the synovial fluid and the risk of recurrence of gout attacks is controversial. Some studies have suggested that IgA levels may increase in the synovial fluid of patients with gout attacks, while others have found no change.

The dose-response relationship between temperature and recurrent gout attacks seemed to suggest a threshold effect such that when the temperature reached 85°F, the risk of recurrent gout attacks increased dramatically, according to Dr. Zhang.

The relationship between the level of IgA and the risk of gout attacks appears to be stronger in patients with gout attacks, but very cold and dry weather also slightly increased the risk of recurrent attacks.

The findings remained significant after controlling for medication use (especially diuretics), alcohol consumption, and purine-rich food intake. Recurrent gout attacks were not associated with barometric pressure or precipitation.

“In hot and humid weather, subjects with gout may need to increase fluid intake to counteract volume depletion and to prevent a recurrent gout attack,” Dr. Zhang concluded.