TNF Inhibitors Work Best in Men, the Young

BY MARY ELLEN SCHNEIDER

FROM THE ANNUAL EUROPEAN CONGRESS OF RHEUMATOLOGY

Being younger, being male, or having an elevated C-reactive protein level are just a few of the factors that are likely to predict whether patients with ankylosing spondylitis will improve when taking tumor necrosis factor inhibitors for the first time, according to new data.

Dr. Karen M. Fagerli of the Diakonhjemmet Hospital in Oslo, and her associates identified several independent predictors of major improvement in ASDAS (Ankylosing Spondylitis Disease Activity Score) in patients with ankylosing spondylitis (AS) after 3 months of taking a TNF inhibitor.

The independent predictors are younger age, male sex, C-reactive protein (CRP) level greater than 10 mg/L, HLA-B27 positivity, and a higher baseline patient global assessment score.

The results confirm findings from previous studies that both age and elevated CRP are predictors of success with TNF inhibitors. They could be used in selecting patients most likely to respond to treatment, especially in countries with limited access to TNF inhibitors.

'The independent predictors identified ... may have limited value for use on the individual patient level.'

DR. FAGERLI

Clinicians should exercise caution in applying the other predictors found in the study to a clinical setting, Dr. Fagerli stressed in an interview.

Other studies have not found gender to be a significant predictor, and few other studies have shown HLA-B27 positivity to be a predictive factor.

"The independent predictors identified in this model give information about which patients are most likely to show a good clinical response on a group level, but may have limited value for use on the individual patient level," Dr. Fagerli said.

The researchers extracted data from the Norwegian DMARD (NOR-DMARD) register, a repository of data on adult patients with inflammatory arthropathies who are starting a new disease-modifying antirheumatic drug treatment. The patients are consecutively included from across five rheumatology departments in Norway.

The current analysis included 171 AS patients who were being treated with their first TNF inhibitor. The mean age of the patients in the sample was 42 years, more than 73% were male, and the average disease duration was 10 years. Nearly a third of the patients in the study achieved ASDAS major improvement on a TNF inhibitor at 3 months.

The researchers plan to repeat these analyses with an updated data set that includes more patients, Dr. Fagerli said.

She also noted that the results will need to be validated in other cohorts, particularly the findings related to gender, patient global assessment, and HLA-B27.

In general, more research is needed into new and more accurate predictors of response to TNF inhibitors in AS and other rheumatic diseases, Dr. Fagerli said. Pharmacogenetic studies have the potential to identify these predictors, and further research to find new soluble biomarkers as markers of response will also be important. In addition, the role of MRI in diagnosis, predicting response, and monitoring treatment will be an important field in the years to come.

Dr. Fagerli said she had no financial disclosures. ■

Early Podiatry Referral Eased Pain, Preserved Function

BY NASEEM S. MILLER

FROM THE ANNUAL EUROPEAN CONGRESS OF RHEUMATOLOGY

If patients in early stages of rheumatoid arthritis have foot problems, it is "crucial" to refer them to podiatrists, according to recent findings.

Roughly 90% of people with RA eventually develop foot or ankle symptoms, according to investigator Marike van der Leeden, Ph.D., a senior researcher and project leader at Reade, rehabilitation and rheumatology in Amsterdam.

To date there are no data on the most effective type of foot orthoses for patients with RA-induced foot pain.

DR. VAN DER LEEDEN

Prescription foot orthoses is one of the ways to manage the patients' foot problems.

However, "indications for foot orthoses are not clear, and the effectiveness of the intervention is highly variable among patients," according to the study.

To determine the clinical and demographic factors that predict the outcome of customized foot orthoses on related pain and disability, researchers conducted a prospective cohort study, which included 135 RA patients who were given customized foot orthoses made by a podiatrist.

Pain and disability were measured before and after the intervention period using a Numeric Rating Scale (NRS) for foot pain, the Foot Function Index (FFI), the Western Ontario and McMasters Universities Osteoarthritis Index (WOMAC), and a 10-meter walking time test, according to the study.

The intervention period included one or more podiatrist appointments during which the foot problem was diagnosed and managed.

The results showed that the duration of RA was negatively associated with score changes in NRS foot pain ($P = .018$), WOMAC pain ($P = .001$), FFI disability ($P = .003$), and WOMAC physical function ($P = .002$).

Age was negatively associated with the change score in 10-meter walking time ($P = .008$).

Statistically significant improvements after the intervention with foot orthoses were found on all outcome measures (P less than .001), according to the study.

"Shorter disease duration predicted greater improvements in self-reported foot pain and disability after intervention with foot orthoses," the authors concluded.

"Younger age predicted greater improvements in walking time. Referral for conservative management with foot orthoses in the early stage of RA seems important when aiming to achieve reduction in pain and improvement in daily activities."

"To date, no evidence is available for which types of foot orthoses are most effective for RA. Further research is needed for evidence-based prescription protocols for foot problems in RA." Dr. van der Leeden said.

The authors reported no financial disclosures. ■

Hyperuricemia Boosts Risk of Hypertension in Young Adults

BY MITCHEL L. ZOLER

Young adults with hyperuricemia faced a significantly increased risk for later developing hypertension, based on follow-up of more than 4,900 Americans.

This link between hyperuricemia and the later appearance of hypertension did not involve a confounding role by metabolic syndrome.

And although the analysis could not establish a causal link between hyperuricemia and hypertension, the results indicated that an elevated serum level of uric acid marks people with an increased risk for later having hypertension, according to Dr. Eswar Krishnan.

Dr. Krishnan and his associates conducted a multivariate analysis that adjusted for baseline differences in subject age, gender, race, serum creatinine clearance, and waist circumferences.

The investigators found that people in the highest quartile of serum uric acid level at baseline had a significant, 76% increased risk for later developing hypertension, compared with the quartile of people with the lowest baseline serum uric acid level, reported Dr. Krishnan, a rheumatologist at Stanford (Calif.) University.

The study used data from the 5,115 people enrolled in the Coronary Artery Risk Development in Young Adults (CARDIA), which entered people between the ages of 18-33 years at four U.S. sites in 1986.

The investigators followed them for up to 20 years.

Excluding people who at baseline had hypertension or any other component of metabolic syndrome (abdominal obesity, elevated triglycerides, depressed high-density lipoprotein cholesterol, elevated fasting glucose) left 4,918 people for the analysis.

The researchers used serum uric acid levels as the basis for dividing the study group into quartile.

They found that in men serum uric acid levels ranged from 0.4-5.3 mg/dL uric acid in the lowest quartile to 6.8 mg/dL or greater in the highest quartile, and in women ranged from 0.6-3.7 mg/dL in the lowest quartile to 5.0 mg/dL or greater in the highest quartile.

During the 20 years of follow-up, 7% of the men in the lowest quartile for serum uric acid developed incident hypertension. In contrast, 16% of the men in the highest uric acid quartile developed new-onset hypertension. The difference was statistically significant, Dr. Krishnan and his associates reported at the annual European Congress of Rheumatology in London.

When the researchers subdivided the CARDIA subjects by race and sex, elevated serum uric acid levels linked with a significantly increased risk of later developing hypertension among black men and women and among white men.

The link did not reach statistical significance among white women because of the small number of incident cases of hypertension during follow-up.

The analysis was sponsored by Takeda, which markets febuxostat (Uloric), a drug approved to lower serum uric acid levels in patients with gout.

Dr. Krishnan said that he has been a consultant to Takeda, Savient, and Ardea. Three coauthors on the study are Takeda employees. ■