Give Pneumococcal Vaccine Before Methotrexate

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SAN ANTONIO — Etanercept and infliximab do not appear to reduce responses to pneumococcal vaccination—but methotrexate treatment does, suggest the findings of a prospective trial conducted in Sweden.

Whenever possible, "rheumatoid arthritis patients should be vaccinated before starting methotrexate," the lead investigator, Meliha Crnkic, M.D., advised at the annual meeting of the American College of Rheumatology.

Dr. Crnkic of Lund University Hospital and colleagues found that 50% of 62 rheumatoid arthritis patients receiving either etanercept or infliximab monotherapy had adequate responses to vaccination, defined as a twofold or better increase in immunoglobulin G antibody (23F and 6B) titers 4-6 weeks after vaccination.

By comparison, the response rate was 32% in 50 patients being treated with one of the biologics combined with methotrexate; 14% of the 37 patients receiving methotrexate monotherapy responded adequately. The difference between the response of the patients on biologic monotherapy and methotrexate monotherapy was statistically significant.

Among 47 healthy volunteers, 38% responded to vaccination. The difference in response rates between these controls and the patients on biologic monotherapy was not statistically significant. However, the healthy controls were slightly older as a group than the patients on the biologic agents alone, and, among the controls, age was shown to be factor in response, with the younger patients responding better, Dr. Crnkic noted.

Age did not appear to be a factor in response rates among patients taking the biologics, nor was gender, drug dosage, nor concurrent low-dose corticosteroid treatment.

It's not clear why the patients on combination treatment had a better response than the patients on methotrexate alone.

The study is the first prospective trial to investigate whether pneumococcal vaccination response is affected by treatment with a biologic agent. Previous reports had suggested that the agents did not cause a problem, Dr. Crnkic said. ■

Enterotoxic S. aureus Boosts Psoriasis Severity

PARIS — Patients colonized with certain enterotoxic strains of *Staphylococcus aureus* had significantly worse Psoriasis Area and Severity Index scores than did patients not colonized with these bacterial strains, raising the possibility that antibiotics might have an adjunctive role in treatment, Austrian dermatologists reported at the European Congress on Psoriasis 2004.

Nordwig S. Tomi, M.D., and Elisabeth Aberer, M.D., of Karl Franzens University in Graz, Austria, theorized that enterotoxins might act as superantigens in stimulating dysfunction within T-cells and keratinocytes, triggering psoriasis.

To test the hypothesis, they took sample swabs from the lesional skin and nares of 25 patients with psoriasis for evidence of *S. aureus* colonization and identification of enterotoxins A, B, C, or D.

Samples from 15 of 25 patients grew positive cultures; these samples were from the nares alone in 1 patient, skin only in 4 patients, and skin and nares in 10. Sixty percent of the strains produced *S. aureus* enterotoxins.

Enterotoxin A was not detected in any patient, but four patients had enterotoxin B, two had enterotoxin C, one had D, and combinations of A plus D and B plus C were found in one patient each.

"The Psoriasis Area and Severity Index score was significantly higher ($P = .001$) in patients with enterotoxin-producing staphylococcal strains," the investigators reported in a poster presentation at the meeting.

"Our results support the hypothesis that *S. aureus* enterotoxins can trigger psoriasis," they concluded, noting that in patients with exacerbated psoriasis and a positive *S. aureus* enterotoxin profile, "antibiotics could be a supporting treatment tool."

The dermatologists called for more research into the mechanisms by which superantigens may trigger psoriasis.

—Betsy Bates