Pediatric SLE's Course Varies by Ethnicity, Age

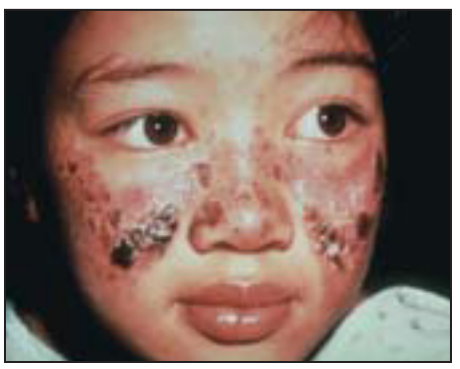
BY SHARON WORCESTER
Southeast Bureau

DESTIN, FLA. — Ethnicity appears to play an important role in the incidence and clinical manifestations of pediatric systemic lupus erythematosus, data from a recent study suggest.

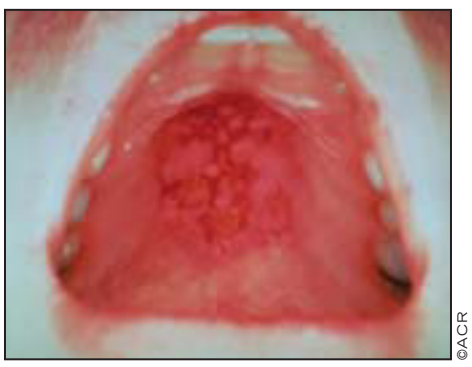
Findings from the study of 87 white and 154 nonwhite children showed that more than 60% of age-matched controls without pediatric systemic lupus erythematosus (SLE) were white; however, fewer than 40% of the pediatric SLE patients were white. Black, Asian, and South Asian patients are overrepresented in the pediatric SLE population, Dr. Earl Silverman reported at a rheumatology conference sponsored by Virginia Commonwealth University, Richmond.

The study, which has been submitted for publication, found that mucocutaneous manifestations were more common in white children and organ involvement was more common in nonwhite children, said Dr. Silverman, professor of pediatrics and immunology at the University of Toronto.

Malar rash and photosensitivity were the mucocutaneous manifestations seen more often in the white patients, compared with the nonwhite patients (occurring in 86% vs. 66% and 40% vs. 18%, respectively). Renal disease occurred in 45% of the white patients, compared with 62% of the nonwhite patients, he noted. Central nervous system involvement occurred at similar rates in both groups (24% and 25%, respectively).



An acute malar rash with crusting is shown on this 13-year-old girl with SLE.



Painful palatal ulceration is seen in this 12-year-old girl with SLE.

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In regard to autoantibodies, ethnicity also appeared to play a role. Although anti-DNA, anticardiolipin, lupus anticoagulant, and anti-La antibodies were similar in white and nonwhite children, anti-Sm, anti-RNP, and anti-Ro were expressed more in the nonwhite patients (34% vs. 56%; 30% vs. 42%; and 28% vs. 45%, respectively).

The differences in course and incidence of SLE, based on ethnicity, are likely a result of interactions between genes and environment. Although there are no direct implications for physicians based on these findings, it is hoped that the study will help identify groups that are at low and high risk for mild and severe SLE, he said.

In addition to the ethnic differences in pediatric SLE, compared with adult SLE, physicians should also keep in mind that 20% of all SLE cases begin before age 18 years, with an overall prevalence of 10-20/10,000 children in this age group. In addition, girls are four times as likely as boys to develop SLE, Dr. Silverman said.

The diagnosis of pediatric SLE usually occurs during the ages of 11-14 years.

Common features are fever, weight loss, malaise or lethargy, and fatigue. Despite controversy over whether the features of SLE differ in pre- and postpubertal children, a study by Catherine DiSipio and her colleagues at Columbia University, New York, presented in poster form at the 2007 meeting of the American College of Rheumatology showed that the rates of arthritis, serositis, renal disease, central nervous system disease, and hematologic complications did not differ between the groups, nor did median SLE disease activity index.

However, intensive care unit admissions and deaths occurred more often in those younger than age 11 years, compared with those 11 years and older (32% vs. 21% and 11% vs. 0% , respectively).

Neuropsychiatric manifestations also can occur in pediatric SLE. Studies suggest that, among patients with neurologic involvement (about 25% of SLE patients), headache occurs in 68%, psychosis occurs in 36%, cognitive dysfunction occurs in 27%, cardiovascular disease occurs in 24%, seizures occur in 18%, mood disorders occur in 15%, and chorea occurs in 11%.

Visual hallucinations are a hallmark of SLE-related psychosis in pediatric patients. Visual distortions are often seen, as is sensitivity to light and sound. Magnetic resonance imaging is frequently normal in SLE-related psychosis, but a SPECT scan can be helpful for differentiating it from idiopathic schizophrenia, he said. ■

Combo Prevents Progression Of Early Rheumatoid Arthritis

BY NANCY WALSH
New York Bureau

PARIS — The addition of infliximab to intensive combination disease-modifying therapy in early rheumatoid arthritis resulted in higher rates of remission and no radiographic progression at 2 years in a placebo-controlled trial of 100 patients.

Combination therapy with methotrexate, sulfasalazine, and hydroxychloroquine plus prednisone has previously been shown to be associated with a remission rate of 37% in patients with early RA, Dr. Marjatta Leirisalo-Repo said at the annual European Congress of Rheumatology.

In the current trial of 100 patients with RA of less than 1 year's duration, the patients were randomized to the regimen in the Finnish Rheumatoid Arthritis Combination Therapy (FIN-RACo) trial plus infliximab or placebo, to determine whether the addition of the tumor necrosis factor (TNF)–blocking agent would increase remission rates.

The intensive, remission-targeted FIN-RACo regimen includes individually tailored doses of methotrexate, up to 25 mg/wk, and sulfasalazine, at a maximum of 2 g/day, along with fixed doses of hydroxychloroquine (35 mg/kg per week) and prednisone (7.5 mg/day).

In addition to the combination disease-modifying antirheumatic drug (DMARD) regimen, patients received placebo or infliximab in doses of 3 mg/kg at weeks 4, 6, 10, 18, and 26, and were followed for 2 years.

At baseline, patients had active disease, said Dr. Leirisalo-Repo of the division of rheumatology at Helsinki University Central Hospital. The patients' mean age was 46 years, and the median duration of their symptoms was 4 months; 68% of the patients were rheumatoid factor positive, and 67% were female. The mean number of swollen joints was 15, the mean number of tender joints was 20, the mean erythrocyte sedimentation rate was 33 mm/hr, and the mean Health Assessment Questionnaire (HAQ) score was 1.

At 24 months, the remission rate was 53% among patients receiving the combination plus placebo regimen and 70% in the combination plus infliximab group. Sustained remission out to 24 months was seen in 31% and 40% of those in the placebo and infliximab groups, respectively.

"Patients in the infliximab group had an overall odds ratio of 2.24 for reaching remission," Dr. Leirisalo-Repo said.

The median total Sharp/van der Heijde score was 0 at baseline in both groups. At 2 years, the score was 1.4 in the placebo group compared with 0.2 in the infliximab group, suggesting that there had been almost no radiographic progression in the infliximab group, she said.

Dr. Leirisalo-Repo disclosed that she has received research grants from Schering-Plough Finland and consulting fees from Centocor Inc., and that she holds nonremunerative positions of influence with Abbott Laboratories, Bristol-Myers Squibb Co., and Roche. ■

Factors May Predict Response To Less Aggressive RA Therapy

BY NANCY WALSH
New York Bureau

PARIS — Factors that predict which patients with rheumatoid arthritis will achieve and maintain stable remission following treatment with traditional disease-modifying drugs include low body mass index, low erythrocyte sedimentation rate levels, and absence of anti–cyclic citrullinated peptide antibody at baseline.

"In light of the fact that remission is increasingly becoming an attainable goal in rheumatoid arthritis treatment, it would be useful to be able to predict which patients are likely to achieve remission in the long run, and so to be able to avoid overly aggressive treatment and the associated side effects," Dr. Diane van der Woude said at the annual European Congress of Rheumatology.

Although some factors have been identified that predict the achievement of very low disease activity with biologic agents, little is known about the characteristics and predictive factors of patients who are treated with less aggressive, conventional disease-modifying antirheumatic drugs (DMARDs), said Dr. van der Woude of the department of rheumatology at Leiden (the Netherlands) University Medical Center.

Dr. van der Woude and colleagues analyzed clinical, laboratory, and genetic data from patients enrolled in an inception cohort at the Leiden Early Arthritis Clinic between 1993 and 2003.

Among more than 1,900 patients referred to the clinic, 454 were diagnosed with RA and treated with chloroquine, sulfasalazine, or methotrexate, she said.

Sustained remission, defined as the absence of synovitis for longer than 1 year without the use of DMARDs, was achieved by 69 of these patients (15%) with an average follow-up of 8 years.

Six patients who had originally been discharged from the clinic because of remission experienced a recurrence of synovitis and were excluded from the remission group.

Univariate analysis revealed that the following factors were significantly associated with less likelihood of achieving DMARD-free remission: positive family history (hazard ratio 0.56); high body mass index (HR 0.90); long duration of symptoms at presentation (HR 0.93); smoking (HR 0.55); and the presence of IgM rheumatoid factor (HR 0.17), anti–cyclic citrullinated peptide (CCP) antibodies (HR 0.09), and shared epitope alleles (HR 0.47).

Multivariate analysis identified older age, low body mass index, low erythrocyte sedimentation rate, short duration of symptoms, nonsmoking status, and the absence of anti-CCP antibodies as being independent predictors for achieving DMARD-free remission, she said.

These findings demonstrate that "several clinical factors that are routinely assessed in clinical practice are robust predictors of achieving stable remission," Dr. van der Woude said. ■