Three Factors Spell Trouble in JIA-Related Uveitis

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VERSAILLES, FRANCE — A multicenter chart review of children whose uveitis was associated with juvenile idiopathic arthritis has identified three factors to help physicians target patients at risk of poor ocular outcomes.

"Sometimes the ophthalmologists are a little shy about pushing stronger immunomodulatory drugs. We were looking for predictors at onset so that ... maybe we would know which kids are likely to have trouble and maybe get them started on stronger medications earlier," the study's lead investigator, Richard J. Mier, M.D., said during a poster presentation at the 12th European Pediatric Rheumatology Congress.

Of the 44 children studied, 17 (39%) had serious eye problems during the 3 years after uveitis was detected. Despite the dual diagnosis, just 35% of the children who had poor ocular outcomes were receiving systemic immunomodulatory drugs.

The surprising finding was that "only a third was getting treatment," Dr. Mier, director of pediatric services at Shriners Hospital for Children in Lexington, Ky., said in an interview.

"Our bottom line," he added, "is that we are undertreating these kids, and what we really need to do is treat them more aggressively earlier."

Dr. Mier and his coinvestigators defined poor ocular outcomes 36 months after diagnosis as acuity of 20/50 or less in one eye, three or more complications, or the need for ocular surgery. The study narrowed 17 potential risk factors at uveitis diagnosis to the following three predictors of poor ocular outcomes:

- Moderate or severe inflammation in one or both eyes.
- Eye inflammation symptoms such as pain, redness, photophobia, and tearing.
- Visual acuity of 20/50 or less in one or both eyes.

While uveitis is an eye inflammation, most children with juvenile idiopathic arthritis (JIA) do not present with eye symptoms, according to Dr. Mier. Typically, they are referred to an ophthalmologist for an eye exam after JIA is diagnosed because uveitis is a known comorbidity.

The children in the study were diagnosed with arthritis at 53 months of age on average and with uveitis more than a year later at 69 months.

At 36 months of follow-up, the most common ocular complications were synechiae, cataracts, glaucoma, and band keratopathy. About a third of the children (34%) required eye surgery.

Different centers use a variety of strategies for managing uveitis associated with JIA, according to Dr. Mier. The ideal is to have the pediatric rheumatologist collaborate with the ophthalmologist in treating the child, he said. ■

o-JIA Prognosis May Have New Genetic Marker

A gene polymorphism of the phosphorylated glycoprotein, osteopontin, appears to be associated with the prognosis of oligoarticular-onset juvenile idiopathic arthritis, but more data are needed before it is considered a reliable disease marker.

Recently proposed to be a new proinflammatory cytokine, osteopontin plays a role in bone resorption and angiogenesis and is known to mediate a number of inflammatory mechanisms.

The current study, led by Renato Marciano, M.D., of the G. Gaslini Institute and the University of Genova, Italy, involved 73 patients with persistent oligoarticular-onset juvenile idiopathic arthritis (o-JIA) and 46 with extended o-JIA (Ann. Rheum. Dis. 2005; doi:10.1136/ard.2005.040626).

Patients were genotyped for the biallelic insertion/deletion variant at +245 in the first intron of the osteopontin gene, which the researchers had previously found to be in strict linkage with molecular variants in the osteopontin promoter region.

The TG polymorphism in the first intron was identified as allele 1, and the TGTG allele as allele 2. The presence of allele 2 was significantly higher (47/73 or 64%) in the persistent oligoarticular group, compared with patients with the extended form (20/46 or 43%), suggesting a dominant effect of the TGTG allele in o-JIA patients.

—Patrice Wendling