Don't Hesitate to Treat Possible Kawasaki Disease

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NEW YORK — Physicians should never feel guilty about overdiagnosing and overtreating possible Kawasaki disease, Dr. Jeffrey R. Starke said at a meeting sponsored by the American College of Emergency Physicians.

"If you look at the risk-benefit ratio of treatment versus the complications if we don't treat, it's clear we should err on the side of overtreatment, especially in children younger than 12 months who are at high risk for developing severe coronary artery abnormalities," Dr. Starke stated.

These youngest patients also are more likely to present with incomplete Kawasaki disease, and this diagnosis should be considered in any infant younger than 6 months with fever persisting for more than 6 days who has evidence of systemic inflammation that cannot be otherwise explained.

The diagnosis of incomplete Kawasaki disease also should be considered in children with unexplained fever for more than 5 days who have two or three, rather than four, of the principal clinical features of Kawasaki disease (see box below).

In such a patient, if the C-reactive protein is 3 mg/dL or greater and/or the erythrocyte sedimentation rate is 40 mm/hour or more, supplemental laboratory criteria should be obtained.

If three or more of the supplemental laboratory criteria are present, the child should have an echocardiogram and treatment should begin.

If there are fewer than three of the supplemental laboratory criteria, an echocardiogram is in order.

If the echocardiogram shows evidence of cardiac abnormalities, start treatment. If it is negative and the fever abates, Kawasaki disease is unlikely.

But if it persists, repeat the echo and arrange for a consultation with an infectious disease or rheumatology expert, said Dr. Starke, vice chairman of pediatrics at Baylor College of Medicine, Houston.

Another reason for instituting treatment, even if the diagnosis is incomplete or uncertain, is that the standard treatment with intravenous immunoglobulin (IVIG), 2 g/kg as a single infusion, is quite safe.

"It's expensive, but the complication rate is pretty darn low," he said.

On occasion, treatment can even begin before an echocardiogram is done.

"In my hospital, it's virtually impossible to get an echo between Friday afternoon and Monday morning, and if we are convinced the child has Kawasaki disease, we'll go ahead and give the IVIG and get the echo later," he said.

Aspirin also is routinely given, even though a recent Cochrane review found insufficient evidence supporting this practice (Cochrane Database Syst. Rev. 2006;doi: 10.1002/14651858.CD004175.pub2).

"I don't know of a single infectious disease expert or rheumatologist who doesn't still use aspirin in addition to IVIG in the treatment of Kawasaki disease," Dr. Starke commented.

High aspirin doses of 80-100 mg/kg per

The Criteria for Kawasaki Disease

Diagnostic Criteria

Fever greater than 39°C for 5 days, plus four of the following:

- ► Conjunctivitis, usually bulbar and bilateral.
- ► Mucous membrane changes, such as redness and cracking.
- ► Rash, either generalized or local.
- ► Enlarged cervical lymph nodes, usually unilateral and nontender.
- ► Peripheral changes, such as swelling or peeling.

Incomplete Kawasaki Supplemental Laboratory Criteria

- ► Albumin 3 g/dL or less.
- ► Anemia for age.
- ► Elevation of alanine aminotransferase.
- ► Platelets 450,000/mcL or more after 7 days.
- ► White blood cell count 15,000/mcL or higher.
- ► Urine white blood cell count 10/HPF (high power field) or more.

Sources: Dr. Starke; Circulation 2004;110:2747-71

day should be given initially. Some clinicians continue the high dose for 14 days and then reduce the dose to 3-5 mg/kg per day, while other pratitioners maintain the high dose only until 24-48 hours after the patient defervesces, and then switch to the low dose for 2 months for antiplatelet effects.

There have been no trials suggesting the superiority of either approach, he noted. Nor is there convincing evidence for adding corticosteroids to the treatment regimen, although data suggest some clinical benefit.

In a recent prospective randomized trial that included 178 patients with Kawasaki disease, children who received prednisolone in conjunction with IVIG had a shorter duration of fever and a faster fall in C-reactive protein, but there was no difference in coronary artery dilation at 1 month (J. Pediatr. 2006;149:336-41), Dr. Starke noted

If the fever persists or returns more than 36 hours after completion of the IVIG infusion, a second dose can be given. "But be patient. It's very common for kids to continue to run a fever the day after you give the IVIG dose, even as other symptoms are improving," Dr. Starke advised. Most patients respond very well to that second dose, he added. ■