

Studies Cast Doubt on Steroids for Dengue Fever

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ASPEN, COLO. — Corticosteroids have no current role in the management of dengue fever, Dr. Suchitra Rao said at a conference on pediatric infectious diseases sponsored by Children's Hospital, Denver, and the University of Colorado.

Systemic steroids have a long history of use in the most severe clinical manifestations of dengue fever: dengue hemorrhagic fever and dengue shock syndrome. Small observational studies suggested they were of possible benefit.

But a Cochrane Systematic Review of the only four published placebo-controlled trials showed no benefit for corticosteroids in patients with dengue shock syndrome. The four small studies totaling 284 participants, deemed by the Cochrane reviewers as studies "not of good quality," showed no significant impact on mortality, need for blood transfusions, hospital length of stay, or serious complications including pulmonary hemorrhage and seizures (Cochrane Database Syst. Rev. 2006;DOI: 10.1002/14651858.CD003488.pub2).

There is, however, an ongoing randomized controlled trial evaluating the use of systemic steroids in patients with severe dengue-related retinopathy, including retinal vasculitis and exudative retinal detachment. The study was prompted by several favorable case reports along with a plausible mechanism of benefit—namely, that dengue retinopathy entails immune complex deposition, and early use of steroids may inhibit this process, explained Dr. Rao, a pediatric infectious diseases fellow at the hospital.

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that the child simply has a cold, he continued. CT scans should not be taken during the winter respiratory infection season nor during or immediately after a respiratory infection. Keep in mind that one CT scan alone is not enough; it should be repeated before any surgical intervention.

In looking at the anatomy, assess the turbinates, he advised. When appropriate, an inferior turbinate reduction can be helpful. "The technology has improved over the years; we don't take the turbinates out. We don't do anything to the mucosa. We'll do a submucosal resection. And the current form of therapy is to do a radiofrequency ablation of the turbinate." As a result, not only is the airflow improved, but medications [also] can be used more effectively—as they can be more directly targeted without obstruction.

An adenoidectomy can make a difference for many children, Dr. Pransky said. Even small adenoids can be a problem. Improvement of symptoms ranges from 50% to 70%. Often younger children respond better than older ones.

About 10%-15% of the population has concha bullosa—an aerated middle turbinate.

Dr. Pransky said he is involved with research with ArthroCare Corp. and Medtronic Inc. ■

Dengue fever is an acute illness characterized by sudden onset of fever, headache, severe joint and muscle pain, lymphadenopathy, retro-orbital pain, and a characteristic widespread maculopapular rash that may cover much of the body except for the face. The rash usually appears at the end of the fever, which lasts 5-7 days.

Fifty million cases of dengue fever occur annually in sub-Saharan Africa, India, Southeast Asia, Mexico, the Caribbean, and northern South America. The disease

is encountered in the United States in travelers to endemic areas who bring the infection back home.

Children under age 10 years are most often affected. The disease is caused by any of four serotypes of *Flavivirus* transmitted by *Aedes* genus of mosquitos.

The diagnosis is most often made on the basis of a positive IgM capture enzyme-linked immunoassay test; however, this test becomes positive only beginning on day 4 or 5 after symptom onset. Poly-

merase chain reaction testing has acceptable sensitivity only during the first few days of the illness; by day 7 the sensitivity of PCR declines to less than 10%.

A low platelet count and increased hematocrit indicate increased likelihood that a patient will develop dengue hemorrhagic fever or shock syndrome.

Vaccines are now in clinical trials. A successful vaccine will have to provide protection against all four dengue virus serotypes. ■

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