Propranolol Tried for Severe Hemangiomas

BY KERRI WACHTER

BALTIMORE — Propranolol for the treatment of severe infantile hemangiomas is getting some buzz in pediatric dermatology circles, and results from a new patient series support the interest.

Investigators at Johns Hopkins University treated 25 patients for a total 35 hemangiomas with propranolol. Dr. Katherine B. Puttgen reported interim results for 20 children—with a mean therapy duration of 3.7 months—at the Atlantic Dermatologic Conference. In all, 14 children (70%) who completed treatment had moderate or marked hemangioma improvement.

Interest in using the beta-blocker for the treatment of hemangiomas was piqued by a letter in the New England Journal of Medicine, in which French researchers reported that severe hemangiomas on 11 infants dramatically improved with propranolol (N. Engl. J. Med. 2008;358:2649-51). The letter "created a firestorm of activity and enthusiasm in the pediatric dermatology community," said Dr. Puttgen, who is an assistant professor of pediatric dermatology at the Johns Hopkins University.

The mechanism of action for propranolol is unknown though "clearly there must be something vasoconstrictive going on in the hemangioma because within a couple of days of the initiation of therapy, the hemangiomas tend to become much softer … and more violaceous in color," Dr. Puttgen said.

At Hopkins, pediatric cardiologists suggested admitting the infants for monitoring for 2-3 days because of the rapid dose escalation. The infants are started at a dose of 1 mg/kg per day, which is doubled 24 hours later. All of the infants get a baseline EKG. While the children are in the hospital, vital signs and blood glucose levels are measured 1 hour after each dose. Serial photographs are taken to measure change over time. After the infants are discharged, their blood pressure and heart rate should be checked at their pediatrician's office every 48 hours for the first week.

In the series, girls out-numbered boys 4:1. Most of the infants were white (20), 2 were black, 2 were Hispanic, and 1 was of Middle Eastern descent. Patients ranged in age from 28 days to 5 years, though most of the children were started on treatment at 2-4 months of age (mean 239 days, median 97 days).

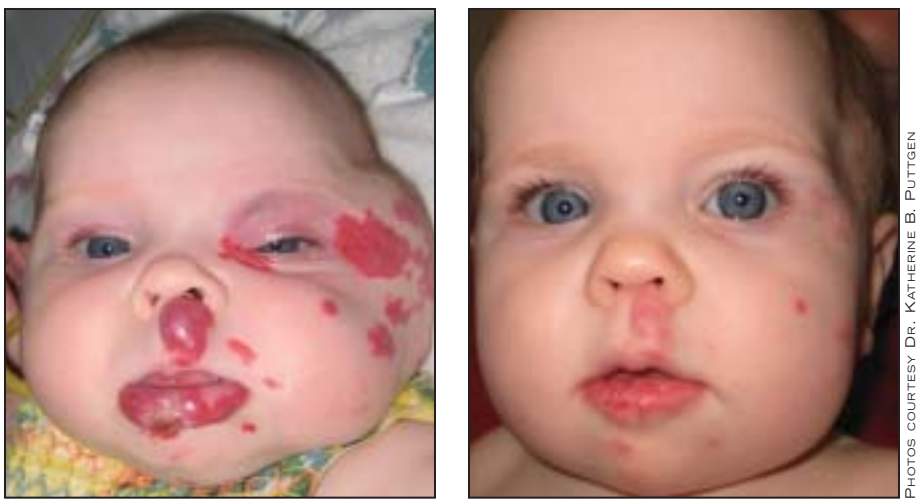
Most of the patients (84%) had facial hemangiomas, most of which were focal (88%); 56% were of a mixed morphologic subtype. The most common complication was ulceration (32%). The biggest concern with propranolol is the risk for hypotension and low blood glucose in patients. One patient discontinued treatment due to hypotension.

None of the hemangiomas have worsened, Dr. Puttgen noted. Five patients had no or minimal change, two of whom were older. Three patients were considered to have moderate improvement, and 11 had marked improvement. Five infants were excluded because they are still on the treatment.

While many infants have impressive results, it is already clear that not all hemangiomas respond to propranolol, Dr. Puttgen noted.

Dr. Anthony J. Mancini, of Children's Memorial Hospital in Chicago, cautioned that the results are impressive but a number of questions need to be answered before propranolol becomes widely used for infantile hemangiomas.

Dr. Puttgen reported having no relevant financial conflicts of interest. ■



PHOTOS COURTESY DR. KATHERINE B. PUTTGEN

Despite 3 weeks of prednisolone, this infant's hemangioma remained severe on day 1 of propranolol therapy (left). Follow-up is shown 7 months later (right).

Pesticide-Free Topical for Fighting Head Lice Approved

BY DAMIAN McNAMARA

The first head lice treatment with benzyl alcohol as the active ingredient has received Food and Drug Administration approval for use in adults and children aged 6 months and older.

The newly approved agent (not yet named) is the first prescription product to kill head lice by suffocation. While the agent lacks pesticides contained in other FDA-approved products, the approval carries a strongly worded warning not to use the agent in premature infants, citing the risk of serious respiratory and heart- or brain-related adverse events such as seizure, coma, or death.

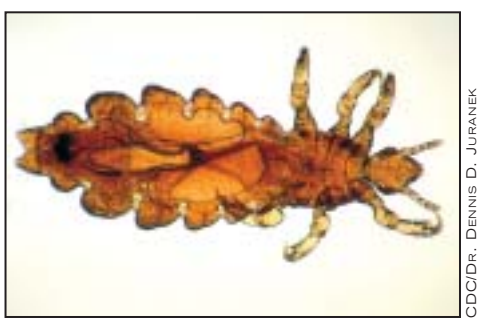
The gestational age of the participants was not known when the clinical study data were submitted to the FDA, Jesse Fishman, Pharm.D., medical information officer for Sciele Pharma Inc. (manufacturer of benzyl alcohol lotion, 5%), said in an interview. The company recommends only using the product on babies of normal gestation age plus 6 months. Therefore, based on an average full gestation of 40 weeks, a baby born prematurely at 35 weeks could be treated when they reach 6 months plus 5 weeks of age, for example.

The approval was based on data from two safety and efficacy trials with a total of 628 children with active infestations of *Pediculosis capitis*; the children's average age was 7 years in one trial and 10 years in the other. The study participants underwent two 10-minute applications (1 week apart) of benzyl alcohol lotion, 5% or topical placebo. Scalp examination conducted 14 days after completion of treatment showed that active infestation was resolved in 75% of the participants on active treatment and 26% of those on placebo.

The warning about not using [the drug] in premature infants is strong," Dr. Seth J. Orlow said in an interview. "Parents and prescribers will want to know how premature an infant must be to fall under the warning, and when an ex-preemie is no longer considered 'a premature infant,' " he said.

The potential for treatment resistance might be lower with benzyl alcohol lotion, 5%, compared with traditional pediculocides, said Dr. Orlow, chairman of dermatology and professor of pediatric dermatology at New York University, New York.

He had no relevant disclosures. ■



CDC/DR. DENNIS D. JURANEK

The new agent is the first prescription product to kill lice by suffocation.

PML Risk Drives Efalizumab Off the Market for Psoriasis

BY DENISE NAPOLI

The psoriasis drug efalizumab is being rapidly phased off the U.S. market, and as of June 8 will no longer be available to patients, according to a statement issued by the Food and Drug Administration.

Providers should not initiate efalizumab treatment in new patients, according to the FDA.

The voluntary withdrawal of the agent on the part of Genentech, which markets the drug as Raptiva, was taken in response to three cases of progressive multifocal leukoencephalopathy (PML) in patients taking the drug; two of the three patients died of the progressive neurologic disease. A fourth patient developed progressive multifocal leukoencephalopathy while taking efalizumab but died of other, unknown causes.

According to Genentech, approximately 2,000 patients are currently taking the drug for chronic plaque psoriasis.

Patients now taking efalizumab should work with their doctors to discontinue the drug in a safe manner, as abrupt discontinuation could result in severe psoriasis worsening, according to Genentech.

The recombinant humanized monoclonal antibody efalizumab was approved in 2003 as a once-weekly injection for the treatment of chronic moderate to severe plaque psoriasis in adults. In October 2008, the drug's prescribing information was updated to include a boxed warning on the risk of infections, including PML. In March of this year, that warning was updated again, with a new Medication Guide for patients.

The European equivalent of the FDA, the European medicine's Agency's human drug panel recommended suspending use of efalizumab in February.

PML is a rare viral infection usually seen in patients with severely compromised immune systems. It has no known effective treatment. PML has also been reported in patients taking natalizumab for multiple sclerosis or Crohn's disease. Although initially withdrawn from the market, natalizumab was relaunched for use in MS in June 2006 through a restricted distribution program. The same sort of program is used to control access to the agent for Crohn's disease. ■

Physicians are asked to report adverse events to the U.S. Food and Drug Administration's MedWatch program at www.fda.gov/medwatch/report.htm.