verse effects were monitored before and for 180 minutes after the injection.

Results. The 5 children who used EpiPen Jr had a mean age of 5.4 years, mean weight of 18.0 kg, and achieved a maximum plasma epinephrine concentration of 2037 pg/mL at 16 minutes. Those who used EpiPen had a mean age of 6.6 years, mean weight of 25.4 kg, and had maximum plasma epinephrine concentrations of 2289 pg/mL at 15 minutes. Mean systolic blood pressure 30 minutes after injection was significantly higher with the EpiPen than with EpiPen Jr. Transient pallor was noted in all 10 subjects after injection. Tremor and anxiety were noted in some subjects receiving EpiPen Jr and in all subjects receiving EpiPen. Some of the EpiPen recipients also experienced headache and nausea.

Conclusions. Although EpiPen raised systolic blood pressure significantly more than did EpiPen Jr, the higher-dose device was associated with distinctly more side effects. The small study sample size, coupled with the fact that the children receiving EpiPen Jr were significantly smaller, likely explains the failure to identify a significant difference in peak plasma epinephrine concentrations after the 2 different doses. In the absence of more dosing options in children in the 15- to 30-kg weight range, the prescribing physician must rely on certain clinical details. The EpiPen should be considered when: weight is close to 30 kg; the patient has asthma (a known poor prognostic factor in anaphylaxis); history of severe acute allergic event; and suboptimal access to emergency care. The adverse effects of epinephrine are largely unavoidable, given the narrow therapeutic index of the drug. This fact is not justification for delay in administering epinephrine, because such delay is also associated with poorer prognosis. Additional EpiPen fixed doses need to be made available for children in the 15- to 30-kg range.

Reviewer’s Comments. The major problem we face is parental/other responsible party fear of administering the EpiPen or EpiPen Jr device, despite extensive education regarding all aspects of the clinical problem, including the treachery that comes with the “wait to see if things get worse” approach. Although it would be good if we could fine-tune EpiPen dosing better in the weight group discussed in this article, this core compliance problem will remain. Proper contingency treatment with an EpiPen of whatever dosing strength will continue to require lots of encouragement and reinforcement for parents especially.

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Efficacy and Safety of Tacrolimus Ointment Compared with That of Hydrocortisone Acetate Ointment in Children With Atopic Dermatitis


Purpose of the Study. To compare 0.03% and 0.1% tacrolimus ointment with 1% hydrocortisone acetate ointment in children 2 to 15 years of age with moderate-to-severe atopic dermatitis (AD).

Study Population. Children ages 2 to 15 years with a diagnosis of AD were recruited from 27 centers in 6 European countries and Canada. Patients were required to have a severity grading of moderate to severe (using established criteria) and at least 5%, but not >60%, total body surface area (BSA) involvement.

Methods. This was a phase III, multicenter, randomized, double-blind, parallel-group trial. Patients were randomized (1:1:1) to receive 0.03% or 0.1% tacrolimus or 1% hydrocortisone acetate. Treatment included application of a thin layer of ointment twice daily to active skin lesions until clearing of lesions for 7 days. Other therapies were prohibited with the exception of inhaled or intranasal corticosteroids (maximum dose: 1 mg/day) and nonmedicated emollients or bath oils. Assessments were at baseline, days 3 and 7 and weeks 2 and 3 of treatment and 2 weeks after completing treatment (week 5). Assessments included investigator rating of skin disease and BSA involvement and patient symptoms assessment symptoms. These were used to calculate the modified eczema area and severity
LONG-TERM TREATMENT WITH CETIRIZINE OF INFANTS WITH ATOPIC DERMATITIS: A MULTI-COUNTRY, DOUBLE-BLIND, RANDOMIZED, PLACEBO-CONTROLLED TRIAL (THE ETAC TRIAL) OVER 18 MONTHS


Purpose of the Study. To analyze the effects of long-term use of cetirizine on the severity, natural history, and treatment of atopic dermatitis (AD).

Study Population. A total of 795 infants, 12 to 24 months old, with active AD for at least 1 month and 1 parent or sibling with a history of AD, allergic rhinitis, or asthma were enrolled from 12 European countries and Canada.

Methods. This was a prospective, randomized, double-blind, parallel-group study comparing cetirizine with placebo in infants with AD and a family history of atopy. Systemic corticosteroids, cromoglicate, and oral antihistamines were discontinued; however, topical therapy for AD was continued. After a washout period, participants received treatment with 0.25 mg/kg of cetirizine or placebo twice daily for 18 months. Follow-up visits were at 1 and 3 months, then every 13 weeks during the 18-month treatment period. At each visit, atopy status, severity of AD based on the SCORAD index (an objective rating scale used to determine AD severity), concomitant therapy and adverse experiences were recorded. Blood and urine samples were followed throughout the study to evaluate total and specific immunoglobulin E (IgE) and eosinophil counts.

Results. During the treatment period, participants in both groups had a steady decline in the severity of AD based on both the subjective symptom score and SCORAD index. Although this decline was statistically significant (P < .001), no difference was observed between study groups. There were no specific recommendations or restrictions for additional therapy for AD during the treatment period, and significantly more participants in the placebo group were treated with additional oral H1 antihistamines when compared with the treatment group (25% vs 19%; P = .03). There was no statistically significant difference observed in topical steroid use between groups; however, the duration of moderate-to-strong topical steroids (class II-IV) was longer in the placebo group (25% of the days vs 18%; P = .067). This relative corticosteroid-sparing effect was statistically significant for infants with severe disease (SCORAD index ≥25) at baseline (35% of days vs 26%; P = .014). The number of participants who developed urticaria was significantly lower in the treatment group than placebo (5.8% vs 16%, P < .001). There were no significant differences in the occurrence of other adverse events between groups.

Conclusions. The use of cetirizine in infants with AD appears to be safe and significantly reduces the use of additional H1 antihistamines and the occurrence of urticaria. Results also suggest that cetirizine has a relative corticosteroid-sparing effect by decreasing the duration of moderate-to-potent topical steroid use.

DRUG ALLERGY

LACK OF PENICILLIN RESENSITIZATION IN PATIENTS WITH A HISTORY OF PENICILLIN ALLERGY AFTER RECEIVING REPEATED PENICILLIN COURSES


Purpose of the Study. To determine the rate of penicillin (PCN) resensitization in adults with a history of PCN allergy after exposure to multiple courses of PCN.

Study Population. Fifty-three adults with a clinical history consistent with an acute, immunoglobulin E (IgE)-mediated reaction to PCN.

Methods. Adults >18 years of age who had a history consistent with an acute, IgE-mediated reaction to PCN were recruited for the study. Participants underwent PCN
EFFICACY AND SAFETY OF TACROLIMUS OINTMENT COMPARED WITH THAT OF HYDROCORTISONE ACETATE OINTMENT IN CHILDREN WITH ATOPIC DERMATITIS

Stacie M. Jones

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