shorter length of stay compared with patients treated with prednisolone. Of the subjects treated with dexamethasone, those who received it in the first 60 minutes had a mean 34-minute decrease in length of stay compared with those treated with prednisolone. Early treatment with albuterol within 60 minutes or after did not affect length of stay.

CONCLUSIONS. Early corticosteroid administration within 60 minutes of triage in pediatric patients with asthma exacerbations was associated with a significant decrease in the overall length of stay. This study suggested that choice of oral corticosteroid, dexamethasone over prednisolone, may also affect the length of stay.

REVIEWER COMMENTS. Previous studies have found early corticosteroid administration to lessen admission rates to the hospital. Although this study did not show a difference in admission rates, this study did support early corticosteroid administration within the emergency department to help lessen length of stay. Properties of dexamethasone make it appear superior to prednisolone, but prospective randomized trials are necessary, as previous studies did not show significant improvements for decrease in length of stay or in admissions. As treatment protocols become more common, a prospective study that validates early use of oral corticosteroids and choice of oral corticosteroid, dexamethasone over prednisolone, may also affect the length of stay.

Effect of Inhaled Glucocorticoids in Childhood on Adult Height


PURPOSE. Inhaled glucocorticoids (ICS) have been shown to have a temporary decrease in linear growth velocity in children. The effect of ICS on adult height has not been well defined.

STUDY POPULATION. Participants (943 of 1041) in the Childhood Asthma Management Program study were enrolled between December 1993 and September 1995. They were between 5 and 13 years of age at that time with mild to moderate asthma. They were randomized to 1 of 3 study groups: either budesonide 400 μg per day via dry-powder inhaler, nedocromil 16 mg per day via pressurized metered dose inhaler, or placebo. The length of the study was 4 to 6 years.

METHODS. The calculated differences in adult height for each active treatment group as compared with placebo was done using multiple linear regression with adjustment for demographic characteristics, asthma features, and height at trial entry.

RESULTS. Mean adult height was 1.2 cm lower (95% confidence level –1.9 to –0.5) in the budesonide group than in the placebo group \( (P = .001) \) and 0.2 cm lower (95% confidence level 0.9 to 0.5) in the nedocromil group than in the placebo group \( (P = .61) \). During the first 2 years, decreased growth velocity in the budesonide group occurred primarily in prepubertal girls.

CONCLUSIONS. The initial decrease in attained height associated with the use of ICS in prepubertal children persisted as a reduction in adult height, but the decrease was not progressive or cumulative.

REVIEWER COMMENTS. This observation in 91% of the best characterized group of mild to moderate asthmatic individuals gives information that the effect on growth velocity seen in the first 1 to 2 years of treatment is not cumulative. These data cannot be extended to other ICS products with different delivery systems.

Impact of Intranasal Corticosteroids on Asthma Outcomes in Allergic Rhinitis: A Meta-analysis


PURPOSE OF THE STUDY. To perform an updated systematic review with meta-analysis to assess the impact of intranasal corticosteroid (INCS) medications on asthma outcomes in patients with allergic rhinitis and asthma.

METHODS. A systematic review and meta-analysis were performed on articles published before May 2012. Randomized controlled trials evaluating the efficacy of intranasal corticosteroids in children and adults were identified from PubMed, Cochrane, and Medline databases and were assessed for systematic bias. Studies were included if they assessed at least 1 asthma-specific clinical outcome and had 1 of the following interventions: (1) INCS spray versus placebo, (2) INCS spray plus orally inhaled corticosteroids versus orally inhaled steroids alone, and (3) nasally inhaled corticosteroids (deliver medication to both nasal and lower airway tracts) versus placebo.

RESULTS. Twenty-three clinical trials were identified, and 18 studies were included in the analysis (9 of them were pediatric or included children), for a total of 2162 individuals. When looking at the studies comparing INCS spray to placebo without concurrent treatment
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