

Effects of Intranasal Budesonide Delivered by Nasal Nebulizer on Symptoms and Objective Measures of Nasal Congestion in Perennial Allergic Rhinitis (PAR)

*Fuad Baroody, MD, James Lane, BSc, Marianella Paz-Silva, MD, Kristal Wimmer-Kunito, MD, Jayant Pinto, MD, Robert Naclerio, MD, COSM 2013 Program, p 21
Chicago, IL*

Introduction:

We hypothesized that intranasally nebulized budesonide would distribute better and be of greater benefit than an aqueous delivered intranasal steroid. To investigate this hypothesis, we performed a pilot study investigating nebulized budesonide vs placebo.

Methods:

We performed a parallel, randomized, double blind, placebo-controlled, pilot study in subjects (n=40) with PAR caused by dust mites or mold. After recording baseline symptoms, subjects were randomized to budesonide respules (0.25 mg), or an equivalent placebo for 26 days. Nasal peak inspiratory flow (NPIF) and symptoms (graded on a 0-3 scale) were recorded by the subjects twice daily. Rhino-conjunctivitis quality of life (QOL) as well as nasal volume, measured by acoustic rhinometry, were obtained at baseline, after 2 weeks, and at the end of treatment.

Results:

The total change from baseline in symptoms was greater for the group on budesonide (-86.5) compared to placebo (-51.5) (p=0.48). When the total change from baseline was compared between the groups, budesonide resulted in higher NPIF (945 l/min) than placebo (485l/min), p=0.099. QOL improved in both groups compared to baseline with no significant difference between the groups. On the final visit, nasal volume was higher in the group on budesonide (16.9+/-0.9 cc) compared to placebo (14.2+/-1 cc), p=0.055.

Conclusions:

Compared to placebo, administration of nebulized budesonide in subjects with PAR resulted in improvements in symptoms and objective measures of nasal congestion which approached but did not achieve statistical significance. A higher dose of active agent, and a larger number of subjects might have improved statistical significance.