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Intranasal Corticosteroids for Allergic Rhinitis Superior Relief?

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Abstract

Whether first-line pharmacological treatment of allergic rhinitis should be antihistamines or intranasal corticosteroids has been discussed for several years.

First-generation antihistamines are rarely used in the treatment of allergic rhinitis, mainly because of sedative and anticholinergic adverse effects. On the basis of clinical evidence of efficacy, no second-generation antihistamine seems preferable to another. Similarly, comparisons of topical and oral antihistamines

have been unable to demonstrate superior efficacy for one method of administration over the other.

Current data documents no striking differences in efficacy and safety parameters between intranasal corticosteroids.

When the efficacy of antihistamines and intranasal corticosteroids are compared in patients with allergic rhinitis, present data favours intranasal corticosteroids. Interestingly, data do not show antihistamines as superior for the treatment of conjunctivitis. Safety data from comparative studies in patients with allergic rhinitis do not indicate differences between antihistamines and intranasal corticosteroids. Combining antihistamines and intranasal corticosteroids in the treatment of allergic rhinitis does not provide any additional effect to intranasal corticosteroids alone. On the basis of current data, intranasal corticosteroids seem to offer superior relief in allergic rhinitis than antihistamines.

Allergic rhinitis is a common condition elicited by an immunoglobulin (Ig)E-mediated allergic inflammation of the nasal mucosa and characterised by nasal obstruction, rhinorrhoea, sneezing and nasal itch, and often accompanied by conjunctivitis. It is present in 10 to 20% of the population in industrialised countries.^[1] Moreover, this prevalence seems to be increasing.^[2,3] Although allergic rhinitis is not a life-threatening disease, it can severely impact on quality of life^[4-6] and be associated with comorbidity from other diseases, for example, asthma and conjunctivitis.^[7]

Treatment of allergic rhinitis consists of allergen avoidance, allergen-specific immunotherapy and pharmacological intervention, of which the former two lie beyond the scope of the present review. Two mainstream options have evolved for pharmacological treatment, antihistamines and topical corticosteroids. The choice between these options has been extensively discussed since the introduction of intranasal corticosteroid treatment.^[8]

This review considers first-line pharmacological treatment of allergic rhinitis and will deal only with antihistamines and intranasal corticosteroids (INCS), as we consider cromones, anticholinergics, leukotriene modifiers, decongestants and systemic corticosteroids as secondary treatment options in allergic rhinitis.

Only data obtained in patients with allergic rhinitis have been considered for the comparative evidence presented in this review.

1. Antihistamines

1.1 General Considerations

Histamine is the major pathophysiological mediator of allergic rhinitis. Its role is almost exclusively mediated through the histamine H₁-receptor, whereas the role of other histamine receptors in allergic rhinitis remains to be clarified. Thus, in the context of allergic rhinitis, antihistamines are H₁-receptor antagonists.^[9,10] In addition to H₁-receptor blockade, an anti-inflammatory effect of antihistamines has been proposed, as some of the newer compounds have been shown to influence cytokine production, mediator release and inflammatory cell flux.^[11-19] However, other studies have been unable to confirm these findings.^[20-23] Whether antihistamines offer a clinically beneficial anti-inflammatory effect in addition to inhibition of histamine remains a question to be answered.

1.2 Oral Antihistamines

Numerous H₁-receptor antagonists have been developed. For oral use, these can be divided into older first-generation [e.g. chlorphenamine (chlorpheniramine), diphenhydramine, promethazine and triprolidine] and newer second-generation antihistamines (acrivastine, astemizole, cetirizine, ebastine, fexofenadine, loratadine, mizolastine and terfenadine). This review deals with the newer antihistamines as the use of the older drugs in allergic

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