

ALLERGY Net

ALLERGY 2011 DOI: 10.1111/j.1398-9995.2011.02682.x

© 2011 JOHN WILEY & SONS A/S

CONTRIBUTIONS TO THIS SECTION WILL NOT UNDERGO PEER REVIEW, BUT WILL BE REVIEWED BY THE ASSOCIATE EDITORS

Combining H1-anti-histamines and nasal corticosteroids to treat allergic rhinitis in general practice

L. F. Ramírez, R. Urbinelli, F.-A. Allaert, P. Demoly*

Keywords: allergic rhinitis; allergic rhinitis and its impact on asthma; combination therapy; H1-antihistamines; nasal corticosteroids; primary care.

Allergic rhinitis (AR) is a worldwide problem that affects almost one-fourth of the adult population (1). The ARIA (Allergic Rhinitis and Its Impact on Asthma) initiative has proposed the classification of AR as 'mild' and 'moderate to severe', and has adapted treatment recommendations according to this classification. In patients in whom AR guidelines were followed, rhinitis and conjunctivitis symptoms are better controlled (2). According to ARIA, H1-antihistamines (H1A) are the first-line choice in mild intermittent rhinitis. In severe and persistent forms, a nasal corticosteroid (NCS) should be used as first choice (1). For intermediate forms, both treatments are possible. If these treatments taken alone do not produce optimal results, they may be associated, although there is no evidence that this

Despite guidelines, combination therapy with H1-antihistamines and corticosteroids is overused as first-line treatment in France.

combination is superior to NCS alone (3).

In this study, we looked at the Epidemiologic Survey on Seasonal Allergic Rhinitis in General Practice and Epidemiologic Survey on Perennial Allergic Rhinitis (4) databases and the factors that led doctors to prescribe the combination therapies of H1A and NCS. The patients and the methods have been reported previously (4). A total of 3026 patients with seasonal AR were enrolled by 1346 practitioners, and 3507 patients with perennial AR were enrolled by 1346 practitioners. Both doctors and patients filled out a specific questionnaire on AR. The following parameters were analyzed: age and sex of patients, nasal symptoms, ocular symptoms, respiratory symptoms, general symptoms, disease characteristics (number of days per week and number of weeks per year with symptoms) and quality of life. The previous treatment was analyzed, as well as whether the patients had followed the formulations of the pharmacist, the time they had waited before consulting, the time taken to receive treatment, the consultation type (emergency or medical consultation) and the new treatment given during the consultation.

The descriptive study used conventional parameters, means, and standard deviations for quantitative variables, and percentages for qualitative vari-

ables. These parameters were then compared between the groups treated with NCS or H1A alone and treated with both drugs (combination therapy) by means of a Chi-squared test. The level of significance was set with an alpha risk at 0.05. Furthermore, a logistic regression with the previous criteria was performed to assess the criteria associated with the choice of combination therapy. In order to be included in the model, a criterion had to have a *P* value of <0.20 in the bi-variate analysis. Odds ratios are given with 95% confidence intervals.

Of the patients, 43% were prescribed a combination therapy. We found that patients were more likely to receive it if they had previously been treated with H1A and NCS monotherapy (Table 1). Neither the presence of nasal or bronchial symptoms nor the impairment on daily life significantly influenced the doctor's choice.

The use of a proper AR classification and of treatment guidelines leads to significant improvement in patients (2) when compared with patients managed with a nonstandardized treatment. Regarding combination therapy, the latest update of the ARIA recommendations does not cover this issue (1). Previously (5), it stated that there is no sufficient data supporting the combination. Our study has shown that, in

Table 1 Factors influencing the doctor's choice to prescribe both H1A and NCS

	Odds ratio	95% confidence interval	P-value
Previous H1A treatment	2.01	1.80–2.46	<0.0001
Previous NCS treatment	2.42	2.02–2.92	<0.0001
Previous NVC treatment	1.30	1.04–1.61	0.0167
Previous NS treatment	1.40	0.97–2.02	0.0709

H1A, H1-antihistamines; NCS, nasal corticosteroids; NS, normal saline; NVC, nasal vasoconstrictor.

France, many patients suffering from AR will be treated with a combination of H1A and NCS (43%), mainly because they had received a previous treatment with one drug class only. The question of whether or not they resisted to this treatment is unknown, but the simple fact that they consulted was analyzed as a resistance to the previous treatment. In another large pan-European study, 31.4% were treated with both H1A and NCS (6). Considering the cost of combination and the lack of data, further studies are urgently needed to support or not such an attitude.

*Allergy Department – INSERM U657
Hôpital Arnaud de Villeneuve
University Hospital of Montpellier
34295 Montpellier Cedex 5
France

Tel.: +33 467 33 61 07
Fax: +33 467 04 27 08
E-mail: pascal.demoly@inserm.fr

Accepted for publication 9 July 2011
Allergy 2011
© 2011 John Wiley & Sons A/S
DOI: 10.1111/j.1398-9995.2011.02682.x

References

1. Brozek JL, Bousquet J, Baena-Cagnani C, Bonini S, Canonica W, Casale T et al. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines: 2010 revision. *J Allergy Clin Immunol* 2010;**126**:466–476.
2. Bousquet J, Lund VJ, van Cauwenberge P, Bremard-Oury C, Mounedji N, Stevens MT et al. Implementation of guidelines for seasonal allergic rhinitis: a randomized controlled trial. *Allergy* 2003;**58**:733–741.
3. Anolik R; Mometasone furoate nasal spray with loratadine study group. Clinical benefits of combination treatment with mometasone furoate nasal spray and loratadine vs monotherapy with mometasone furoate in the treatment of seasonal allergic rhinitis. *Ann Allergy Asthma Immunol* 2008;**100**:264–271.
4. Demoly P, Allaert F-A, Lecaesle M, Bousquet J; PRAGMA. Validation of the classification of ARIA (allergic rhinitis and its impact on asthma). *Allergy* 2003;**58**:672–675.
5. Bousquet J, Khaltaev N, Cruz AA, Denburg J, Fokkens WJ, Togias A et al. Allergic Rhinitis and its Impact on Asthma (ARIA) 2008 update (in collaboration with the World Health Organization, GA(2)LEN and AllerGen). *Allergy* 2008;**63**:S8–S160.
6. Canonica GW, Bousquet J, Mullol J, Scadding GK, Virchow JC. A survey of the burden of allergic rhinitis in Europe. *Allergy* 2007;**62**:S17–S25.