

as a wheal at least 3 mm greater than the reaction to the diluent or at least the same size as the reaction to histamine.

A total of 117 patients were entered into the study. There were 82 males and 35 females with ages ranging from 14 to 66 years (mean 31.1 years). Most of the patients seen had moderate (66.1%) to severe (22.6%) symptoms.

The spectrum of rhinitis patients classified by the help of skin prick test, total IgE, and nasal smear.

This was due to the presence of multiple trigger factors. The main groups were idiopathic rhinitis (88.0%), allergic rhinitis (81.2%), food-associated rhinitis (44.4%), emotional or anxiety-induced rhinitis (23.1%), and nonallergic rhinitis with eosinophilia or NARES (10.3%). Significant deviation of the nasal septum was seen in 28.2% of patients. Only 4.3% of patients had nasal polyps.

Of the 103 patients with idiopathic rhinitis, only four had purely idiopathic rhinitis. Underlying allergic rhinitis was seen in 82.5% of these patients. All the patients with emotional or anxiety-induced rhinitis also fell into this idiopathic group, suggesting that emotional rhinitis is probably part of the spectrum of idiopathic rhinitis and perhaps should not be classified separately.

Allergic rhinitis was the main diagnosis in over 80% of our patients. In this group, 89.5% also had symptoms triggered by temperature change as in idiopathic rhinitis, 35.8% by hot, spicy food, and 24.2% by emotion or anxiety. Allergic rhinitis was considered the main diagnosis by convention. In addition, other significant findings in these allergic patients included deviated nasal septum (29.5%). Only one patient had nasal polyps.

Food as a cause of rhinitis is an important consideration in our local population because eating is our "national pastime"! Not unexpectedly, 44.4% of patients had rhinitis triggered by various foods. However, most (86.5%) of these 52 patients actually had gustatory rhinitis triggered by hot, spicy food and 21.2% had alcohol-induced rhinitis. Probable true food allergy was seen in only two patients, and one patient had food-additive sensitivity. Still, gustatory rhinitis is an important clinical problem, as the local foods are often hot and spicy.

Drug-induced rhinitis was seen in 10 patients, but, of these, eight were related to the ingestion of oral contraceptive pills and only two had rhinitis brought on by aspirin. These last two patients did not have polyps, sinusitis, or asthma.

This study showed that the classification of rhinitis is complex because of the presence of multiple trigger factors. Even the new classification by clinical symptoms and simple diagnostic tests suggested by the International Consensus Report on Rhinitis (2) is still unsatisfactory, resulting in huge overlaps between the different groups. Perhaps rhinitis should be viewed as a continuous spectrum with different presentations rather than specific entities which can be neatly classified. Our treatment should therefore be individually tailored to control the presenting symptoms.

Key words: nasal eosinophilia; rhinitis; skin prick test; total IgE.

S. YEAK*, A. B. JOHN, N. CHEE, H. H. CHNG

*Department of Otolaryngology

Tan Tock Seng Hospital

Moulmein Road

Singapore 308433

Tel. (65)3595847

Fax: (65)2506260

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Contact sensitivity to gentamicin with tolerance of systemic exposure

CONTACT WITH topical medicaments applied to the skin or mucosa can give rise to various clinical manifestations of immunologic and non-immunologic origin (1). Gentamicin is typically used, essentially for ophthalmologic, otorhinolaryngologic, and dermatologic processes; but aminoglycosides, as broad-spectrum antibiotics, are usually administered by intramuscular or intravenous injections.

We report on a case of contact sensitization to gentamicin with tolerance of systemic exposure.

■ A 50-year-old man was referred to us because of a clinical history of adverse drug reactions. The first time, at least 3 years before consultation, he felt discomfort and wheezing a few minutes after the first injection of the medicament, and a transient

loss of consciousness after the second dose. He did not remember which medicament was responsible.

The second time, he had treatment with eye-drops for conjunctivitis. In the course of the

*An unusual case of local
contact allergy to
gentamicin not cross-
reacting with neomycin.*

conjunctivitis, he took two different eye-drops: Colircusi Gentadexa® (containing gentamicin) and Maxitrol® (containing neomycin). He did not remember which was the first

one applied. Twenty-four hours after starting to take the eye-drops, he developed erythema and edema involving the eyelids and orbicular and nasal areas, followed by worse itching and conjunctival hyperemia. The symptoms wore off 48 h after he stopped using the eye-drops.

In order to verify our patient's tolerance of several ordinary antibiotics, challenge tests with penicillin G (previous skin prick and intradermal tests were negative), erythromycin, and ciprofloxacin were carried out, and all of them were negative.

In the same way, skin prick tests and intradermal tests with gentamicin sulfate (at 1 and 5 mg/ml) were done, without eliciting any immediate reaction. An intramuscular challenge test with gentamicin (an 80-mg dose of gentamicin sulfate was reached) was also negative. However, 48 h after intradermal tests with gentamicin, our patient exhibited erythema, infiltration, and vesicles in his forearm at the site where gentamicin (5 mg/ml) was intradermally tested. Neither systemic symptoms, conjunctivitis, nor skin lesions at the site of intramuscular injections appeared in the days following the systemic challenge test with gentamicin sulfate.

Subsequently, the patient was patch-tested with the standard series (by True Test®, including neomycin sulfate) and with gentamicin sulfate (80 mg/ml in water), showing a negative reaction to all of the standard series but a positive reaction to gentamicin sulfate (+ + +) at 48 h.

■ Contact sensitivity to gentamicin and its cross-reaction with neomycin are well known (2-7). Many systemic routes may elicit contact dermatitis in sensitized persons, and this contact dermatitis is often localized to sites previously exposed and sensitized (2); in addition, generalized dermatitis after systemic administration of the drug may occur (2, 8). Skin necrosis after subcutaneous injection of aminosides has also been described (9).

In our patient, positive intradermal tests were confirmed by patch testing. Thus, besides patch

tests, intradermal skin tests, at appropriate concentrations, can be useful for diagnosis. Assessment of adverse drug reactions is often difficult because of an unclear history and uncertainty about the drug implicated. Therefore, to avoid complications in diagnostic procedures as a result of poorly documented adverse drug reactions, it would be useful if intradermal tests performed to verify an immediate reaction were also read at 48 h. It is uncertain why our patient did not have a systemic reaction after intramuscular injection of gentamicin sulfate; this fact may be related to his low degree of sensitization.

On the other hand, in spite of the imprecise history, patch tests showed in our patient the lack of cross-reaction between neomycin and gentamicin. Such infrequent sensitization to gentamicin without allergy to neomycin has previously been reported (6). Nevertheless, we advised our patient to avoid the use of antibiotics of the same group (aminoglycosides) whatever the method of administration.

In summary, the case presented is unusual in at least two aspects: the lack of cross-reaction between gentamicin and neomycin, and the tolerance of systemic exposure to gentamicin in one patient with contact sensitivity to gentamicin.

Key words: adverse reaction; antibiotics; contact dermatitis; gentamicin.

F. J. MUÑOZ BELLIDO*, J. C. MOYANO, M. ALVAREZ,
J. L. JUAN, J. BELLIDO
*Pza. de la Reina, n. 1-3, 4 B.
37001 - Salamanca
Spain
e-mail: fcojmb@intertex.es

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