

# Correspondence

## Aspirin-sensitive rhinosinusitis/asthma: Spectrum of adverse reactions to aspirin

To the Editor:

In their recent article "Aspirin-sensitive rhinosinusitis/asthma: Spectrum of adverse reactions to aspirin," J ALLERGY CLIN IMMUNOL 71:574, 1983, Pleskow et al. reported that provocative oral challenge can produce a spectrum of responses in the respiratory tract and that one third of aspirin-sensitive patients experienced variations in the response of their target organs to aspirin.

We have examined aspirin-sensitive patients since 1979 and have performed provocation tests several times with aspirin, applying a method similar to the one described by Pleskow et al.

In 27 patients, i.e., 56%, we observed dyspnea with an FEV<sub>1</sub> fall of at least 20% and nasooocular symptoms, whereas in 21 patients, i.e., 44%, only pure asthmatic responses were found. In seven examined patients we noticed changes in the threshold of provocative aspirin dose,<sup>1</sup> also changes of the skin (urticaria), and nausea and vomiting symptoms were observed (unpublished data).

We succeeded in investigating the development of sensitivity to aspirin in six patients, which was at first demonstrated as nasooocular symptoms only (according to Pleskow et al., this was an aspirin-sensitive rhinosinusitis patient subgroup), but after a few months to 2 yr, the sensitivity was revealed as asthmatic reactions—clearly related to the appearance of bronchial asthma.<sup>1</sup>

Based on observations that (1) in 46 aspirin-sensitive asthmatic patients, i.e., 75%, sensitivity to aspirin appears either simultaneously with asthma or during the first year of asthma, (2) in seven of the examined patients, i.e., about 12%, sensitivity to aspirin precedes the development of asthma but is manifested as extrabronchial symptoms only, and (3) aspirin elicits dyspnea only after the occurrence of asthma. We hypothesized that aspirin-sensitive asthma may result from the coincidence of two phenomena, i.e., bronchial hyperreactivity caused by allergy or infection and sensitivity to aspirin.<sup>1,2</sup> Therefore, the variability in a given patient of the intensity of bronchoconstrictor reactions to aspirin observed by Pleskow et al. and us may be due to fluctuations in nonspecific bronchial hyperreactivity.

We assume that there must exist a defect in other organs than the bronchi if extrabronchial occurrences of aspirin intolerance is to occur. We have undertaken a study to determine if it is possible to detect any abnormality in prostaglandin metabolism in the skin of aspirin-sensitive asthmatic patients.<sup>3</sup> The study was performed in 16 aspirin-sensitive patients in whom the influence of aspirin on the wheal reaction was evaluated after intradermal administration of compound 48/80 and histamine. In aspirin-sensitive asthmatic patients oral administration of aspirin significantly increased the wheal response to compound 48/80, a finding which does not occur in nonaspirin-sensitive asthmatic pa-

tients. Since in the group of aspirin-sensitive asthmatic patients, the applied aspirin dose does not influence the wheal-and-flare response to exogenous histamine, it may be concluded that the reaction to aspirin in a person sensitive to the drug concerns mainly mediator release from mast cells.

Our study demonstrates that aspirin alters arachidonic acid metabolism also in the skin, although symptoms of this intolerance are not demonstrated there.

One may conclude that aspirin intolerance exists independently of asthma and probably develops before asthma in most patients but occurs only in those persons who have an additional local tissue impairment.

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## The boy with Kimura's disease

To the Editor:

May I suggest that the boy with Kimura's disease (J ALLERGY CLIN IMMUNOL 73:561, 1984) has a variant of angioimmunoblastic lymphadenopathy with dysproteinemia (AILD).<sup>1-3</sup> He has several features in common with AILD: pruritic papular dermatitis, eosinophilia, generalized lymphadenopathy with lymphoblastic proliferation, and vascular proliferation with plump endothelial cells. The case is distinctive because he is young, lacks constitutional symptoms, and is producing large quantities of IgE. Apparently, opportunistic infections and lymphomas have, thus far, not been reported in Kimura's disease.

If the clinical and histologic similarities are as close as they appear to be, it would be wise to lump these entities together because pathogenesis, treatment, and prognosis may prove to be the same for both. AILD, for example, probably results from a defective suppressor T cell response

to specific antigen(s).<sup>2</sup> Death may result from opportunistic infections or progression to a malignant lymphoma. The disease may respond to antigen avoidance<sup>4</sup> and/or immune modulation.<sup>5</sup> It is an exciting disease, exemplifying the concept that malignant lymphomas are the end product of poorly regulated immune responses to nononcogenic antigens.<sup>2</sup> It would further suggest that these lymphomas may be preventable.

Allergists are, par excellence, exponents of antigen avoidance and prevention of immunologic disease. This case appears to bridge the gap between allergy and other areas in the broad field of clinical immunology. Could I persuade the authors to be lumpers rather than splitters?

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## Updating the article by Liss et al. "Failure of enzyme encapsulation to prevent sensitization of workers in the dry bleach industry"

*To the Editor:*

The article by Liss et al. (*J ALLERGY CLIN IMMUNOL* 73: 348, 1984) correctly points out the potential sensitization risk of working with such substances. The authors suggest serial prospective surveillance of exposed workers, since the serologic sensitization noted may eventually result in clinical sensitivity. We thought it would be helpful to your readers to bring the report up to date.

Subsequent to the National Institute of Occupational Safety and Health investigation of May 1980 and the discovery that encapsulation of enzymes did not, in fact, provide adequate protection, the company in question instituted improvements in its industrial hygiene program. In October

1980 they engaged us to medically monitor employees exposed to enzymes. We conducted our initial evaluation in January 1981 and have since continued with periodic evaluations semiannually. At the outset we used only the radioallergosorbent test (RAST) for Esperase as the monitor for sensitization, the same method used by the authors Liss et al.

In our initial evaluation we examined 15 regularly exposed and 34 intermittently exposed employees and nine nonexposed control subjects. Twelve exposed employees (both categories) were found to be RAST positive. Incidentally, five of these individuals were RAST negative when they were evaluated by Liss et al. We found no correlation, however, between RAST results and allergic or symptom histories. Indeed, we have since come to the conclusion that the RAST alone is a poor predictor of symptoms and signs caused by exposure to enzymes. We have just started using the skin prick test as our primary surveillance indicator for sensitization. The skin prick test has better employee acceptance than the RAST, which requires a venepuncture. We will continue using the RAST for quantification and verification.

There was no difference between the regularly exposed and nonexposed employees in the mean FEV<sub>1</sub> results on pulmonary function testing after a workshift (PFT) compared to testing before a workshift.

The most common medical finding associated with sensitization was skin rash (seven of 12). Since the bulk of the nonenzyme ingredients in the dry bleach are primary skin irritants, the differentiation of primary contact irritant dermatitis from contact allergic dermatitis can be confusing and difficult to make. Furthermore, the irritant properties of the dry bleach ingredients could cause enough minor skin abrasions to assist in the sensitization process.

In subsequent evaluations six more employees were found to be RAST positive. A total of six employees have been restricted from the work area because of reactive bronchoconstriction and/or contact irritant dermatitis. Importantly, since December 1981 the rate of newly found RAST positivity has decreased, and no additional employees have been medically restricted. We believe there have been materially reduced exposures as a result of the improved ventilation system, use of personal protective equipment, employee training, and the work practices that have been instituted.

We intend to publish at a later date a more complete report on our experience should further events warrant it.

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