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Localized fibrosis associated with immunotherapy?

To the Editor:

Patients receiving immunotherapy can develop localized delayed reactions 4 to 24 hours after their injections. I present a case history in which delayed reactions were associated with subepidermal fibrosis and subsequent tissue retraction.

Patient J. K. began receiving three subcutaneous injections in 1987 for the treatment of allergic rhinitis and asthma. Injection A was administered in her right arm and B and C in her left arm. Injection A contained a mixture of pollens; B, a mixture of pollens and house dust mites; and C, a mixture of cat hair and epidermis. A and B were diluted with 50% glycerin and C with albumin-saline.

Patient J. K. developed dollar-size delayed reactions on several occasions to all three injections. By decreasing the dose and advancing slowly, the injections were all increased to maintenance doses (A and B, 0.25 cc, 1:100 wt/vol, and C, 0.3 cc 50,000 AU/ml). After 5 months of injections, she developed two 25 cent-size areas of localized, hard

subcutaneous nodules of her left arm. A biopsy was performed in one area and revealed extensive fibrosis and a few scattered lymphocytes. We discussed stopping her injections; however, patient J. K. chose to continue her immunotherapy with all three injections in her right arm since she had improved significantly with this treatment. During the next year, no further problems were noted with her arms.

She then moved to Europe for 1 year, stopping her injections during that period of time. On her initial return visit to my office, severe tissue retraction was noted on her left arm in the areas previously described (Fig. 1). The larger area measured 3 by 5 cm and was 0.75 cm in depth. A very small area of her right arm had developed a similar appearance.

The pathogenesis of this fibrosis is unknown. The diluents used in this case are commonly used and have not previously been implicated with such problems.¹ This would suggest that the delayed reactions could be the principal event contributing to the fibrosis. Several cells and mediators have been demonstrated to be present during the late-phase skin response,^{2,3} and their possible contribution to this problem is intriguing.

I would encourage other allergists to reply with any similar problems they may have encountered and comment on the possible pathogenesis of such fibrosis. Reviewing the allergy literature, I was unable to find any references addressing this problem.

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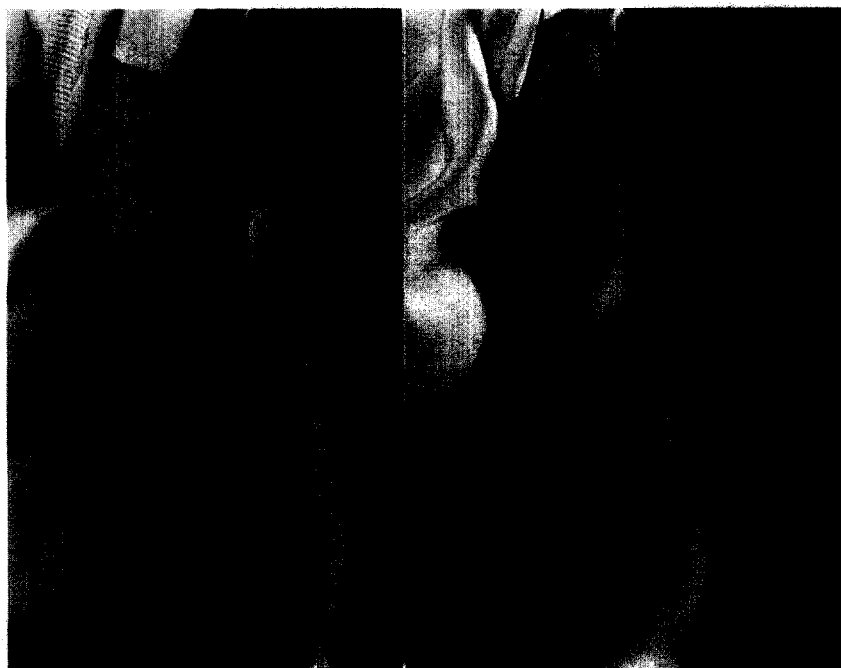


FIG. 1.

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In re: Côté et al. (JACI 1990;85:592-8)*To the Editor:*

In the introduction of the interesting article entitled, "Sensitivity and specificity of PC₂₀ and peak expiratory flow rate

in cedar asthma," by Côté et al. in *THE JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY* 1990;85:592-8, it is mentioned that "... one death has been reported during a specific challenge test with isocyanates," and our article is quoted as reference 2. Because the title of our article is "Fatal asthma in a subject sensitized to TDI," to avoid misunderstandings, I would like to point out that the death on inhalation challenge was reported in our introduction as a personal communication by Dr. Pauli and the death did not occur in our laboratory. The asthma death that was described in our article occurred in a sensitized worker at the work place.

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