

The costs as outlined here are conservative, based on complete adherence to the package insert, and assume that optimal conditions and personnel are available. The costs for the venom extracts will decrease to some extent with additional pharmaceutical competition; however, even with this decrease, the cost of venom immunotherapy will remain extremely high. All those involved in the diagnosis and treatment of Hymenoptera hypersensitivity (pharmaceutical firms and medical providers) should make every effort to decrease these expenses and keep them as low as possible.

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Anaphylactic reactions in skin test-negative patients

To the Editor:

In response to Dr. Yunginger's editorial on Hymenoptera sensitivity, we report on three patients who were skin test-negative but developed anaphylactic reactions following an insect sting. All patients were skin tested to all five venoms according to Pharmacia's recommendations. No intervening stings occurred between the skin testing and the sting and all patients had a positive histamine control. The venom we used to skin test these patients gave positive results in other sensitive patients that same day.

Case A, W. A., is a 10-yr-old boy who was initially stung in October of 1978 and immediately developed hives. The insect was unknown at this time. He was skin tested on June 16, 1979, according to Pharmacia's recommendations and was skin test negative up to the 1.0- μ g/ml level (See Table I). On July 20, 1979, he was stung by an insect and immediately developed hives and angioedema. He gave himself antihistamines and adrenaline and went to the hospi-

tal where he was admitted for observation. He was retested on August 11, 1979 (Table I).

Case B, S. B., is a 14-yr-old boy who was stung by a wasp in July of 1973 on the abdomen and within 15 min developed facial itching, and swelling around the mouth and eyes. He also developed angioedema of the tongue. He was stung by a honeybee approximately 1 yr later with no reaction. He was treated at this time (approximately 1974) by whole body extract and remained on this until the fall of 1978. He was skin tested in May of 1979 to all five venoms with negative results (Table I). On June 24, 1979, he was stung by an insect and developed generalized urticaria. He immediately took antihistamines and administered adrenaline to himself. No further reaction occurred. He was retested on August 7, 1979 (Table I).

Case C, A. R., is an 8-yr-old boy who was stung on the knee in September of 1978 and developed generalized urticaria and pruritus. He was skin tested to all five venoms on May 4, 1979, and all the skin tests were negative (Table I). On July 8, 1979, he was again stung and developed generalized urticaria with difficulty breathing. He was retested on August 4, 1979 (Table I).

The above patients were from a group of 313 Hymenoptera-sensitive patients, 30% of whom were over 15 yr old. All of the 313 patients had generalized allergic reactions following a sting. There were 223 skin test-positive patients, 78 skin test-negative patients, and 12 were equivocal.

We report these cases in order to plea to the allergist and all those involved in this problem not to make dogmatic statements of "not sensitive to stinging insects" based solely on the data from skin testing. We feel from our experience that regardless of the skin test result, a patient with an anaphylactic history to an insect sting would be wise to carry adrenaline.

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TABLE I. Results of skin tests

	Case A (S. B.)		Case B (W. A.)		Case C (A. R.)	
	5/12/79*	8/7/79	6/16/79	8/11/79	5/4/79	8/4/79
Honeybee	6/0†	0	0	0	0	5/0
Yellow hornet	5/0	0	0	8/25	0	5/0
Yellow jacket	5/0	10/15	0	8/20	0	10/12
White-faced hornet	0	10/22	0	12/30	0	10/20
Wasp	0	0	0	8/30	0	0
Rast test	None		None		Honeybee	+
					Yellow jacket	0
					Yellow hornet	0
					White-faced hornet	+
					Wasp	0

* Date tested.

† Expressed as millimeters of wheal/flare.