

THE PREVALENCE OF BEE STING ALLERGY IN AN ALLERGIC POPULATION

By

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The present interest in and understanding of the anaphylactic nature of reactions to insect stings began in this century with *Waterhouse* (3) in 1914. Since that time, although there has been considerable interest in the reactions to the stings of hymenoptera (1, 2) there apparently has been no study of the prevalence of this allergic reaction in an allergic population.

The records of 3,705 private patients of a full-time allergist practicing in New England have been reviewed. All of these cases had a definite diagnosis of asthma or seasonal or non-seasonal allergic rhinitis. There were 1,621 males and 2,084 females.

Of these patients fourteen or 0.38 per cent (6 males and 8 females), had a history of having had a severe systemic reaction to the sting of hymenoptera. One or more of the following symptoms were manifested in each instance: generalized urticaria, angioedema at a site other than that of the sting, wheezing, a sense of impending doom, or a loss of con-

TABLE 1

14 Cases with Severe Systemic Reactions Following the Sting of Hymenoptera.

Age in years	4-9	10-19	20-29	30-39	40-49	50-59	60-68	Total
Male	0	3	0	1	1	1	0	6
Female	0	0	1	0	5	1	1	8
Total	0	3	1	1	6	2	1	14

Sex and age at which they suffered first reaction.

sciousness. These 14 cases were subdivided according to sex and the age at which they experienced the first sting which was followed by a systemic reaction. This data is given in Table 1.

The reactions occurred within thirty minutes in the great majority of instances. Practically all were seen primarily because of the sting.

DISCUSSION

A diagnosis of either allergic rhinitis or asthma is good evidence that an individual is truly atopic. We have reviewed the records of 3,705 patients, all of whom have had either asthma or allergic rhinitis or both of these diseases and found that 14 of them had suffered systemic reactions to hymenoptera.

Since allergic patients who suffer sting reactions as well as those who have severe asthma or allergic rhinitis are more prone to come to the allergist's attention, it might be expected that our finding of a prevalence of 0.38 per cent would be different from that found in a normal, or even a "normal" atopic population. This study does not attempt to resolve this question.

SUMMARY

The private records of a full-time allergist have been reviewed. Of 3,705 cases with asthma, allergic rhinitis, or both of these diseases, 14 or 0.38 per cent experienced a systemic reaction following the sting of hymenoptera. There were 6 or 0.37 per cent of 1,621 males and 8 or 0.38 per cent of 2,084 females.

REFERENCES

1. *Frazier, C. A.*: Insect Allergy, St. Louis, Missouri 1969. Warren H. Green, Inc.
2. *Mueller, H. H. & Hill, L. W.*: Allergic Reactions to Bee and Wasp Sting. New Eng. J. Med. 249, 726, 1953.
3. *Waterhouse, A. T.*: Bee Stings and Anaphylaxis. Lancet. 2, 946, 1914.

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