

SIGNIFICANCE OF THE CAUTERIZATION TYPE OF REACTION DURING PATCH TESTS WITH FRESH GARLIC JUICE

J. S. PASRICHA AND BHARATI GURU

Summary

Cauterization type of reaction to patch tests with fresh garlic juice was seen with almost the same frequency (60%, 52% and 50% respectively) in the patients having contact dermatitis due to vegetables, controls who were routinely exposed to raw garlic, and another group of controls not exposed to garlic. The papulo-vesicular reaction on the other hand, was seen in 70% of the patients, 22% of the exposed controls and 8% of the unexposed controls. It was concluded that the cauterization reaction does not show any correlation with the state of contact hypersensitivity and should therefore be ignored.

Garlic is perhaps the commonest vegetable causing contact dermatitis^{1,2}. However, patch tests with the freshly extracted juice of garlic often produce a brownish black discoloration of skin at the test site as if some cauterizing agent has been applied on this area. In some cases this is the only reaction observed, while in others it is accompanied by an erythematous papulo-vesicular reaction. The present study was undertaken to assess the significance of the cauterization type of reaction.

Materials and Methods

Patch tests were performed with freshly extracted garlic juice in 10 patients having contact dermatitis on their finger tips suspected to be caused by vegetables and 35 control patients who had contact dermatitis due to some other agent but no dermatitis on their finger tips. These controls were comprised of 23 patients who were routinely exposed to

garlic juice and 12 patients who had never been exposed to garlic.

The results of patch tests were classified into the following two types, (1) cauterization reaction (Fig. 1), if there was brownish black discoloration of the skin at the test site, and (2) papulo-vesicular reaction (Fig. 2), if the test site showed papules and papulo-vesicles.

Results

The cauterization type of reaction was seen in 6 out of 10 patients having dermatitis due to vegetables, 12 out of 23 exposed controls and 6 out of 12 unexposed controls. The papulo-vesicular reaction was seen in 7 out of 10 patients, 5 out of 23 exposed controls and 1 out of 12 unexposed controls (Table 1). In some cases, both types of reactions were observed at the same test site.

Discussion

The cauterization type of reaction was seen with almost the same frequency

From the Department of Dermato-venereology
All India Institute of Medical Sciences,
New Delhi-110016

PATCH TEST WITH FRESH GARLIC JUICE

TABLE 1

Incidence of cauterization and papulo-vesicular types of reactions to fresh garlic juice in patients having contact dermatitis due to vegetables, controls exposed to garlic and controls not exposed to garlic.

	Number of patients		Number of controls			
	Tested	Positive	Exposed to garlic		Unexposed to garlic	
			Tested	Positive	Tested	Positive
Cauterization reaction	10	6 (60%)	23	12 (52%)	12	6 (50%)
Papulo-vesicular reaction	10	7 (70%)	23	5 (22%)	12	1 (8%)



Fig. 1 Cauterization reaction



Fig 2 Papulo-vesicular reaction

in the patients having contact dermatitis due to vegetables as the two types of controls. In contrast, the papulo-vesicular reaction was seen in 70% of the patients, 22% of the exposed controls and in only one (8%) of the unexposed controls. These findings suggest that the cauterization type of reaction shows no correlation with the state of

hypersensitivity and must be ignored, while the papulo-vesicular reaction indicates true hypersensitivity. Occurrence of papulo-vesicular reaction in the exposed controls suggests that by repeated exposures to garlic, these individuals have already developed contact hypersensitivity and are likely to develop clinical manifestations whenever they are adequately exposed. The unexposed controls on the other hand, had no chance of developing contact hypersensitivity and therefore do not show the papulo-vesicular reaction. The only unexposed control who showed a papulo-vesicular reaction, had a weak reaction and in this case, cross sensitivity to a chemically related substance cannot be ruled out.

Acknowledgements

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References

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