

Real-world clinical practice of chronic inducible urticaria and urticaria due to type I allergy or intolerance in Japan: A nation-wide cross-sectional web questionnaire survey

Dear Editor,

Procedures for diagnosing inducible urticaria (IndU), such as chronic inducible urticaria and urticaria due to type I allergy or intolerance, have not been standardized in Japan.¹ We conducted a web-based questionnaire to examine the real-world clinical practice in Japan in terms of diagnostic and therapeutic procedures of urticaria in the regular practice setting by physicians specialized in cutaneous allergic diseases. Data were collected from 189 (15.6%) of 1209 physicians requested to participate by e-mail. This manuscript describes the results related to IndU, which featured in the survey. The actual web-based questionnaire items are disclosed elsewhere with participants' characteristics and the other results related to spontaneous urticaria and angioedema (Methods S1).

In skin tests for type I allergy, prick tests were preferred and performed by using commercial reagents (Torii Pharmaceutical Co., Ltd., Tokyo, Japan) (74%) or suspected substances (94%) (Figure 1A). This may be attributable to the fact that prick tests are highly sensitive and are performed by using suspected substances themselves without preparing special antigen solutions. In provocation tests, 80% of physicians started from 1/10 of the amount that triggered episodes (Figure 1B). For the diagnosis of aspirin-induced urticaria, 61 physicians performed tests to identify causative agents, 93% of which was done by provocation tests with the starting dose mainly at 1/10 of the amount that triggered episodes (Figure 1C,D). Identifying alternative agents safe for the patients is important because patients with aspirin-induced urticaria have broad hypersensitivity against antipyretic analgesics. In this study, physicians as many as 84% performed provocation tests to search for alternative agents (Table S1).

As for physical and cholinergic urticaria (CholU), more than half of physicians have experienced seeing patients with mechanical urticaria, CholU, localized cold urticaria, or solar urticaria (Figure 1E). The ratio of these urticaria subtypes is correlated to the actual incidences of each urticaria type previously reported in Japan except for aquagenic urticaria.² An unexpectedly high number (11%) of experiences with rare aquagenic urticaria³ may be possibly due to misdiagnosis of CholU and heat urticaria for aquagenic urticaria. In practices where patients with CholU were seen, more attention was paid to

characteristic symptoms such as the timing of wheal appearance and the shape and subjective symptoms of wheals than to the results of provocation tests with sweating (Figure 1F). This may be because of a lack of standardized and easy-to-perform tests for sweating. The establishment of a protocol of easy and reproducible tests for sweating is needed in future.

There have been no previous survey-based reports of real-world clinical practices of IndU at physicians. The limitations of this survey are that the participants were limited mainly to dermatologists and 15% of requested physicians. Nevertheless, this study has clarified the diagnostic workup of IndU in clinical settings performed by many physicians specialized in cutaneous allergic diseases in Japan. It also showed the procedures used for provocation tests for IndU undertaken by many specialized physicians. The results of this survey may be a basis for establishing standardized protocols for diagnosing IndU in future.

ACKNOWLEDGEMENTS

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CONFLICT OF INTEREST

Dr Michihiro Hide is a member of the Journal of Cutaneous Immunology and Allergy Editorial Board. Management of the peer review process, and all editorial decision-making, for this article was undertaken by Editor in Chief, Yoshiki Tokura who managed this article.

APPROVAL OF THE RESEARCH PROTOCOL

This study was approved by the ethics committee of the Japanese Society for Cutaneous Immunology and Allergy (JSCIA).

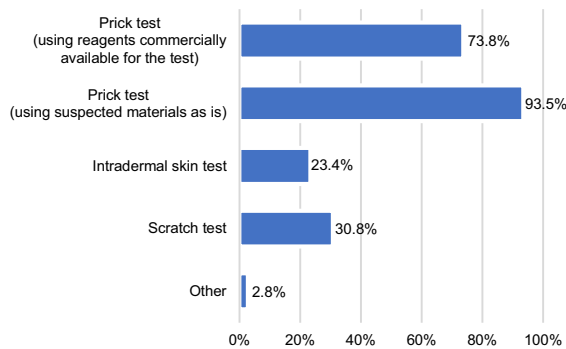
INFORMED CONSENT (ESPECIALLY FOR CASE)

N/A (this web-based questionnaire survey did not involve patients).

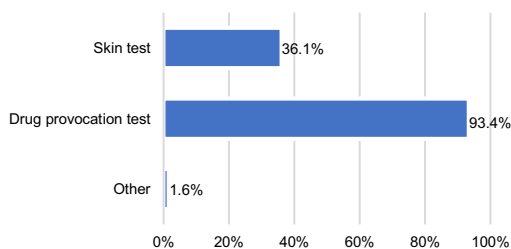
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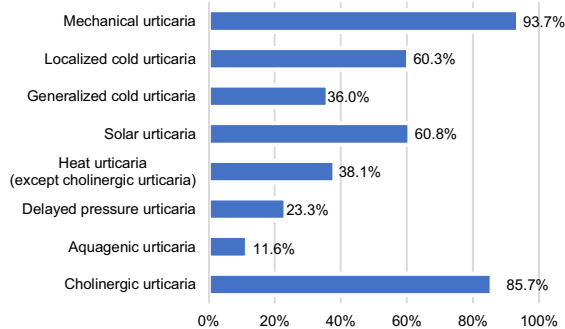
(A) Which skin tests do you perform for diagnosis of urticaria induced by type I allergy? (Multiple answers allowed) (n = 107, question 13)



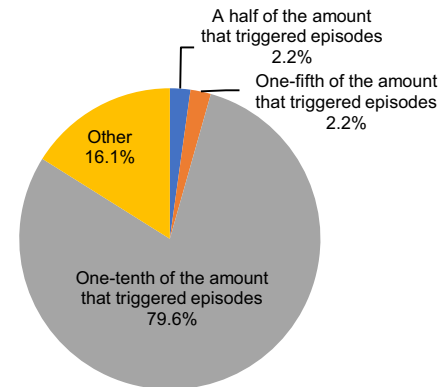
(C) Which tests do you perform for diagnosis of aspirin-induced urticaria (NSAIDs intolerance)? (Multiple answers allowed) (n = 61, question 19)



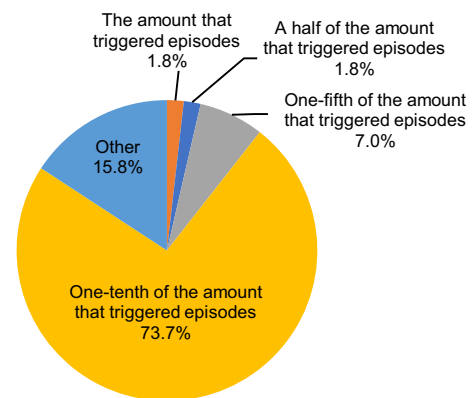
(E) Which types of the following urticarias have you made a diagnosis of, or seen patients with a diagnosis confirmed by other physicians? (Multiple answers allowed) (n = 189, question 22)



(B) What amount of a causative agent do you start with for the provocation test for diagnosis of urticaria induced by type I allergy? (1 choice) (n = 93, question 16)



(D) If you perform a 'Drug provocation test' for diagnosis of aspirin-induced urticaria (NSAIDs intolerance), what dose do you start with? (1 choice) (n = 57, question 20)



(F) To which points do you pay attention when seeing patients with cholinergic urticaria? (Multiple answers allowed) (n = 189, question 25)

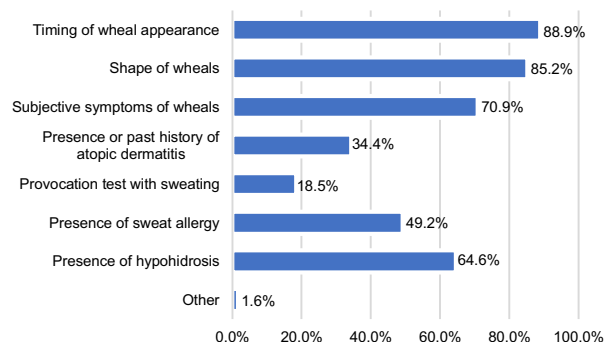



FIGURE 1 The results of the questionnaire on chronic inducible urticaria and urticaria due to type I allergy or intolerance

REGISTRY AND THE REGISTRATION NO. OF THE STUDY/TRIAL

N/A.

ANIMAL STUDIES

N/A.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.