

## Effect of bilastine on chronic spontaneous urticaria refractory to other antihistamines

Dear Editor,

Bilastine, a nonsedating second-generation H<sub>1</sub>-antihistamine, has been widely utilized for urticaria in Japan based on the high-quality evidence provided by the excellent studies.<sup>1,2</sup> A previous randomized trial for perennial allergic rhinitis revealed bilastine is more effective than fexofenadine,<sup>3</sup> speculating its therapeutic potential for chronic spontaneous urticaria refractory to other antihistamines including fexofenadine.

Here, for a prospective study, bilastine 20 mg/d was administered for 18 patients (7 males and 11 females), who visited Shinsaibashi Inui Dermatology Clinic from March in 2017 to June in

2018, with chronic spontaneous urticaria refractory to usual dose of other antihistamines for more than two weeks based on the fact that they did not notice frequent change of wheals. The age of patients ranged from 23 to 62 years (mean age: 37 years). Mean disease duration was 10.8 months. Efficacy is graded by frequent change of wheals noticeable to the patients as follows: no apparent change, no effect; decreased, good; no appearance, excellent. The effect was estimated at 2 and 4 weeks after starting administration of bilastine and the endpoint of treatment. The institutional ethical committee approved this study. As results, bilastine showed excellent effect for 13 patients (72.2%), good effect for two patients

**TABLE 1** Characteristics of the patient and effect of bilastine

No.	Age/sex	Disease duration	Previous drugs	Bilastine effect		Treatment period and bilastine effect	Remarks	
				2 wk	4 wk			
1	33 M	4 mo	Fexofenadine	Good	Excellent	9 mo	Excellent	
2	25 F	36 mo	Fexofenadine, mequitazine, loratadine	Good	Excellent	3 mo	Excellent	Alternate day administration
3	38 F	60 mo	Fexofenadine	Excellent	Excellent	3 mo	Excellent	Seborrheic dermatitis
4	31 M	1 mo	Fexofenadine	Excellent	Excellent	4 mo	Excellent	Quincke's edema
5	44 M	4 mo	Bepotastine	Excellent	Excellent	1 mo	Excellent	
6	24 F	12 mo	Levocetirizine, bepotastine, olopatadine, mequitazine	No effect	No effect	1 mo	No effect	Combination of bilastine and famotidine (20 mg/d) showed excellent effect
7	23 F	7 mo	Levocetirizine, fexofenadine	Excellent	Excellent	1 mo	Excellent	
8	35 F	4 mo	Loratadine	Excellent	Excellent	2 mo	Excellent	
9	45 F	2 mo	Cetirizine	Excellent	Excellent	2 mo	Excellent	
10	60 M	5 mo	Fexofenadine, desloratadine, loratadine	No effect	No effect	1 mo	No effect	Bepotastine and levocetirizine showed excellent effect. Atopic dermatitis
11	29 M	39 mo	Fexofenadine, bepotastine	Excellent	Excellent	3 mo	Excellent	
12	27 F	12 mo	Olopatadine	Good	Good	1 mo	Good	
13	32 M	2 mo	Loratadine	Excellent	Excellent	4 mo	Excellent	
14	40 F	1 mo	Loratadine	Excellent	Excellent	3 mo	Excellent	
15	29 M	2 mo	Fexofenadine, bepotastine	Good	No effect	3 mo	No effect	Levocetirizine showed excellent effect
16	62 F	2 mo	Rupatadine	Excellent	Excellent	7 mo	Excellent	2-3 tablets/wk
17	39 F	1 mo	Rupatadine	Good	Good	6 wk	Good	
18	50 F	1 mo	Cetirizine	Excellent	Excellent	2 mo	Excellent	

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(11.1%), and no effect for three patients (16.7%) (Table 1). Mean therapy duration of bilastine was 2.9 months, and during the treatment period, the effects were maintained in all responders. When compared with the improvement rate 36.6% reported in the previous large-scale study of chronic spontaneous urticaria uncontrolled by antihistamines,<sup>4</sup> the effect here was seemingly preferable although there may be a difference of disease severity between the studies. However, bilastine showed excellent effect only for one patient (33.3%) among the three patients with urticaria resistant to three and more antihistamines (case nos. 2, 6, and 10), indicating such cases are intrinsically refractory. Bilastine was excellently effective in four (80%) of the five cases of loratadine-refractory urticaria and showed superior effect in the two rupatadine-resistant cases (case nos. 16 and 17). This distinct response to the antihistamines may be based on the structural difference of the drugs depending on whether they contain tricyclic fused ring (loratadine and rupatadine) or not (bilastine). On the other hand, excellent effect by bilastine was observed in six (75%) of the eight cases of fexofenadine-resistant urticaria although these drugs are structurally similar containing piperidine structure. Among the three cases resistant to bilastine (case nos. 6, 10, and 15), levocetirizine is effective in two cases potentially because it is a piperazine derivative although the other antihistamines including bilastine contain piperidine reagents.

In this study, the efficiency was estimated using frequency change of wheals noticeable to the patients but regrettably not total symptom scores and/or Dermatology Life Quality Index scores, which might present more accurate evidence for bilastine effect for refractory urticaria.

## CONFLICT OF INTEREST

The author declares no conflict of interest.

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