Original Research Article

Real world Indian experience of switchover to Bilastine in CSU patient refractory to other antihistamines

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ABSTRACT

Background: Second generation anti histamines are first line therapy as recommended by many guidelines for Chronic spontaneous urticaria (CSU). Bilastine, non-sedative H1-antihistamine is recently approved in India for the management of CSU.

Materials and Methods: A real world retrospective study was conducted across India to assess the response of CSU patients who were switched over to bilastine after non satisfactory response to other antihistamines at 140 dermatology clinics.

Results: A data of 518 patients’ were included in this analysis. Mean age of the patients was 35.3 ±12.3 years while mean disease duration was 7.08 ±9.3 months. Baseline mean UCT score of 8.6 ± 3.02 was improved to 13.05 ± 2.9 in 28 days (p<0.05). Based on UCT score, 357 of 518 (69%) patients were classified as responders. An improvement was observed in V AS on day 28. A total of 39 patients (7.53%) complained of adverse events; sedation being the commonest. All adverse effects were mild in nature.

Conclusion: Authors concluded that in patients with inadequate response to commonly used antihistamines at licensed dose, switch over to bilastine resulted, not only in reliving the symptoms of CSU but also added to the Patients’ satisfaction with the drug.

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1. Introduction

Chronic spontaneous urticaria (CSU) is a common skin disease characterized by pruritic, erythematous, and oedematous wheals with daily or near-daily episodes, for > 6 weeks as a result of known or unknown causes. The exact prevalence of urticaria in India is not known. However lifetime prevalence is reported as 7.8-22.3%. Further chronic urticaria is a long-lasting disorder, persisting for 2–5 years in most cases, and 20% of patients being affected for more than 5 years. Therefore, treatment with H1 receptor antagonists (H1-antihistamines) becomes important when treating chronic urticaria patients.

The first-generation antihistamines (AHs) penetrate readily into the brain to cause sedation, drowsiness, fatigue, impaired concentration, and memory. Thus the European Academy of Allergy and Clinical Immunology (EAACI) / Global Allergy and Asthma European Network (GA2
2.1. Inclusion criteria

The adult patients diagnosed with CSU and switched over to Bilastine due to non-satisfactory response to other antihistamines were considered for analysis.

2.2. Statistical analysis

All characteristics were summarized descriptively. For continuous variables, the summary statistics of mean ± standard deviation (SD) were used. For categorical data, the number and percentage were used in the data summaries and diagrammatic presentation. The difference of the means of analysis variables between two time points in same group was tested by paired t test. The level of significance was set at P<0.05. Data was analysed using SPSS software (v.23.0) and Microsoft office (2010).

3. Results

A total of 898 patients’ data was analysed, of which 518 patients met the inclusion criteria and were included in final analysis. A male preponderance was observed (56.18% males as compared to 43.82% females). The mean age of the patients was 35.3 ± 12.3 years. Mean disease duration was 7.08 ± 9.3 months. Levocetrizine was the commonly prescribed antihistamine. All the demographics are depicted in Table 1.

Based on UCT score, 357 of 518 (69%) patients were classified as controlled urticaria and 161 (31%) as non-controlled urticaria at the end of 28 days as showed

A total of 39 patients (7.53%) complained of adverse events; sedation being the commonest (n=25) followed by Fatigue (n=7), dizziness (n=4) and headache (n=3). All the adverse events were mild in nature and none of the patients discontinued the treatment. Overall Bilastine was well tolerated.
Table 1: Baseline demographics

<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>N (%)</th>
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<tbody>
<tr>
<td>Male</td>
<td>291 (56.18)</td>
</tr>
<tr>
<td>Female</td>
<td>227 (43.82)</td>
</tr>
<tr>
<td>Mean Age; years (SD)</td>
<td>35.3 ±12.3</td>
</tr>
<tr>
<td>Mean disease duration; months (SD)</td>
<td>7.08 ±9.3</td>
</tr>
</tbody>
</table>

**Previous medication; N (%)**
- Levocetirizine: 230 (44.4)
- Cetirizine: 59 (11.39)
- Desloratidine: 20 (3.86)
- Loratidine: 12 (2.32)
- Fexofenadine: 123 (23.75)
- Oral steroid: 5 (0.97)
- CPM: 2 (0.39)
- Hydroxyzine: 67 (12.93)

**Major Associated condition; N (%)**
- Hypothyroidism: 25 (4.83)
- Diabetes: 26 (5.02)
- Hypertension: 20 (3.86)
- Atopic dermatitis: 6 (1.16)
- Fungal: 6 (1.16)
- Allergic: 2 (0.39)
- Angioedema: 4 (0.77)
- Scabies: 4 (0.77)
- Seborrheic dermatitis: 2 (0.39)

**Mean UCT (SD)**
- 8.6 (3.02)

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4. Discussion

CSU is characterized by the appearance of itchy wheals and flares lasting for > 6 weeks. As histamine is implicated to play an important role in the pathophysiology of CSU, EAACI/GA2 LEN/EDF/WAO guidelines recommends the use of modern second generation H1 anti-histamines as first line therapy in the management of CSU; however symptom relief with the licensed dose of second generation H1-antihistamines is seen only in < 50% of patients. Hence the EAACI/GA2 LEN/EDF/WAO guidelines recommends up titration of second-generation H1-antihistamines up to fourfold higher, however there is no emphasis on switching over to other H1-antihistamines except for the Japanese guidelines for diagnosis and treatment of urticarial.6,10 This real world study thus assessed the response of switching over to another H1 antihistamine, Bilastine in Indian patients who showed inadequate response with drugs like cetirizine, levocetirizine, fexofenadine and loratadine.

Bilastine, a non-sedating, second generation H1 antihistamine, has been assessed for its efficacy in chronic urticaria in multiple clinical trials.8,9 However there are only few studies which has assessed the effect of switching over to Bilastine in chronic urticaria refractory to other antihistamines. A real life study conducted by Weller et al. assessed the effect in patients who had not responded sufficiently to licensed doses of other H1-antihistamines and thus were switched to Bilastine. This study concluded that following Bilastine 20mg daily for 4 weeks, there was statistically significant fall in the mean urticarial activity score by 37% (p< 0.001) and also fall in the pruritus and wheals at 4 weeks as compared to baseline.13 Similarly, our study also showed at day 28 statistically significant difference in the mean UCT score as compared to the baseline (8.6 ± 3.02 at baseline versus 13.0±2.9 at Day 28) and there was statistically significant improvement in all parameters of UCT.

Further in Weller et al study, almost 21% of patients showed complete response and were symptom free. This is in contrast with the results of our study where in the urticaria...
in 69% patients were under control at the end of 28 days and this may be due to the disease duration which was longer in Weller et al study, with the mean disease duration being 58.7 ± 94.1 monthwhile our study reported a mean disease duration of only 7.08±9.3 months.

Another prospective study conducted by Shigeki Inui et al. assessed the effect of bilastine in CSU patients refractory to other antihistamines like fexofenadine, Levocetirizine, Cetirizine and concluded that Bilastine 20mg when administered for 4 weeks, showed good to excellent treatment effects in 83.3% patients which is slightly higher than our study and this may be due to the smaller sample size of only 18 patients being included in the Shigeki Inui et al study in contrast to 518 patients included in our study.

Symptoms of CSU can be irritating and affect the patient’s quality of life and in addition, most frequently reported concerns with the use of antihistaminic drugs is somnolence which leads to decreased patient satisfaction and non-compliance with the treatment, resulting in inadequate response. Multiple clinical trials have shown that Bilastine 20mg, is effective not only in relieving symptoms but also improving the patients’ quality of life.\(^9,15,16\) According to studies, Bilastine was reported to have the lowest rate of brain H1 receptor occupancy of all the available antihistamines. This confirms that bilastine has a relatively limited potential to cross the blood–brain barrier and interacts with CNS H1 receptors. Therefore, it has minimal capacity to cause CNS adverse effects which in turn could attribute in better quality of life.

Additionally, in a study conducted by Zuberbier et al.\(^15\) out of 338 patients who received either bilastine 20 mg or levocetirizine 5 mg, somnolence was reported lesser in patients receiving bilastine (5.8%) as compared to levocetirizine (6.7%). In our study also, there was significant improvement in the degree of sleepiness with bilastine as assessed by the VAS scores at day 28 as compared to the baseline. In addition, our study also showed significant improvement in patients’ satisfaction with the drug at day 28 compared to baseline, therefore adding to the improvement in quality of life.

To the best of our knowledge, the present study is the first real world study in India, assessing the effect of switch over to Bilastine in patients with chronic urticaria who showed inadequate response with other antihistaminic drugs. Though this study is a retrospective study, which is the limitation, yet the clinical response which was achieved with switch over to short duration treatment with Bilastine is noteworthy. However larger observational studies are recommended to confirm these results.

In conclusion, this study showed that in patients who had inadequate response with commonly used antihistamines at licensed dose, switch over to bilastine at standard dose resulted not only in reliving the symptoms of CSU but also added to the Patients’ satisfaction with the drug.

## 5. Acknowledgement

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## 6. Source of Support

This study was carried out with the help of Glenmark Pharmaceuticals Ltd, Mumbai in terms of collecting all medical records and its analysis.

## 7. Conflict of Interest

The authors declare they have no conflict of interest.

## References


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