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BILASTINE USED IN TREATMENT OF ALLERGIC RHINITIS AND URTICARIA

Dermatology

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ABSTRACT

Bilastin is a new approved second generation oral H1 Antihistaminic drug which is generally used in several countries for symptomatic treatment of Allergic Rhinitis (AR), Chronic Urticaria (CU) and hives. Oral bilastine is a non-sedating H1 antihistaminic antagonist. H1-receptor played most vital role in control allergic inflammation by directly interfering with histamine H1 receptor. Allergic rhinitis is not a serious disease but it is globally health problem. Bilastine does not cross blood brain barrier (BBB). Bilastine has not cytochrome p450 activity. Absolute bioavailability of Bilastine 60 – 61 %. Bilastine bioavailability much more in fasting as compare to with meal. With meal decrease the absorption time of bilastine and time increase to reach maximum concentration (Cmax). Bilastine have a great affinity to protein binding 84-94%. Bilastine approximately 95 % excreted out, faeces or stool (67%), urine (33%).

KEYWORDS

Urticaria, Bilastine, blood brain barrier, faeces.

INTRODUCTION

Bilastine in urticaria management: Bilastin is a new approved second generation oral H1 Antihistaminic drug which is generally use in several countries for symptomatic treatment of Allergic Rhinitis (AR), Chronic Urticaria (CU) and hives.1,2 Oral bilastine is a non-sedating H1 antihistaminic antagonist. H1-receptor played the most vital role in control allergic inflammation by directly interfering with histamine H1 receptor.3,4

Urticaria named is derived from nettle plant (Latin, urtica), which is now known to contain histamine. Histamine has played a mediator role control in urticaria. Histamine has been recognized for many years to symptomatic treatment of urticaria9.uerticaria is a common disease generally affecting approximately 15-20% population at list once during in life time. Even it may happen in any age, it is most common in age group 20 to 40 years 10. It mostly found in developing (Asian) country. Allergenic symptoms of acute urticaria can be identified up to 60 to 80% while this figure is lower as compare to chronic articaria10.Urticaria patient develop typically wheals (hives), angioedema, inflammation and flare8. Wheals are small lived elevated erythematous lesions which range from a few millimeters to centimeters in diameter and can confluent.10,11 Erythematous lesion burning and unbearable and worse in the evening and night time. At least half of urticaria patient reported sleep disterbence.11

Bilastin H1-antihistamines is a nonsedating agent it is newly approved the symptomatic treatment of acute and chronic urticaria, and current guideline for the treatment of acute and chronic urticaria6. Main goal of urticaria management provide symptomatic treatment, relief to patient by antagonizing the effect (etching, hives, inflammation) of histamine from H1 receptor.5 Bilastine have a high affinity and selectivity for histamine H1 receptor, and great influence anti allergic activity.7

Allergic rhinitis: The rate of allergy is increasing in middle and low class country especially in Asian country.14 Allergic rhinitis is not a serious disease but it is globally health problem.13 Allergic rhinitis is a worldwide common disorder which mostly effect 10- 40 % population. AR show the negative effect in patient, and it can be affect quality of life of patient and and decrease night sleep.12 AR patient suffer nasal congestion, etching , rhinorrhea and sneezing result of IgE mediated inflammation. And those who has suffer AR show the symptoms in eyes for example redness, teary, and etching in eyes. allergic rhinitis patients suffer some nonnasal symptoms thirst, headache, cough, wheezing, sore throat etc.12,13,14 Allergy is a common and often recognized cause of respiratory distress, and discomfort among in primary care patient.14

Bilastine show great efficacy in allergic rhinitis and urticaria. Bilastine 20 mg oral once a day is more effective in allergic rhinitis and other allergic diasese.15 Bilasine is as effective fexofenadine 120 mg, cetirizine 10 mg it show great onset of action, after take a dose after one hour it should reduce allergic symptoms. Single dose of bilastine is effective upto 26 hour after intake.15,16,23,25 Bilastine take a single dose daily orally and no show sedation and cardiac toxicity. Bilastine has a good binding property to H1 receptor.16

Brief pharmacokinetic of Bilastine: Bilastine is not structurally derived from any antihistamine it belongs to piperidine derivative activity.1 Bilastine is new discovered second generation H1 antihistamine.15 Bilastine has great affinity to H1 receptor, and H1 inverse agonist. His affinity is 3-6 times more than as compare to cetirizine and fexofenadine.1 Absorption of Bilastine fully dose dependent, taken in fasting stage fast absorption. Bilastine not taken with juice, food and meal delay absorption. Bilastine is recommended to be taken at least 1 hr before meal and 2 hr after meal. Empty stomach increased absorption.5 Bilastine rapidly absorbed after oral administration. Bilastine show great affinity and antihistamine activity in time interval 30 minutes to8:17 hrs.5. Bilastine does not interact with benzodiazepenes.15,16

Bilastine has taken maximum time (Tmax to reach Cmax 1hour 13 minute. Absolute bioavailability of Bilastine 60 – 61 %. Bilastine protein binding value was 84 to 94%.4,19 No accumulation in repeated dose.5,19

Bilastine has no interact on cytochrome p450system and does not undergo significant metabolism in human system. Bilastine does not cross blood brain barrier (BBB).19 It did not show the sedation neurotoxic acitivity.5 Bilastin 20 mg orally is safe in hepatotoxic patient.4,18,19

Bilastine do not show hepatic metabolism and it excreted out by renal excretion. Bilastine approximately 95 % excreted out, faeces or stool (67%), urine (33%).4 It is excreted out in unchanged form.5

Few steps to therapeutic use of bilastine in allergic rhinitis and urticaria.

1	Bilastine is second generation H1 anthistaminic.5
2	Bilastine 20 mg dose once a day daily dose for symptomatic treatment of urticaria and AR.2
3	Bilastine has been no sedative and cardio toxic effect.2
4	Bilastine is well tolerated in seasonal allergic rhinitis and urticaria.19

5	Adverse event of bilastine 0.5% and not any death and serious event recorded.19
6	According to international guideline second generation H1 antihistamine first line treatment in elderly urticaria and allergic rhinitis patient.21
7	Dose adjustment not required in hepatic and renal patient.21
8	Bilastine 95% excreted out faeces and urine.5
9	Bilastine approved in Europe in treatment of urticaria and allergic rhinitis in a children >6 year old patient.22
10	Nonsedating antihistamine has been low lipid solubility.20
11	Bilastine show effectiveness in reducing the symptoms of urticaria and allergic rhinitis.23,24

DISCUSSION:

The efficacy and safety is much required for patient quality life. Bilastine show great bioavilibility in oral dose. Bilastine is safe in hepatic and renal failure patient but give dose once a day some study is required in this field. Bilastine is much safer as compare to other antihistaminic drug. Bilastine is safe or not in pregnant women, more study is required in this topic.

CONCLUSION:

In this review article important resources have been focused on reducing the incidence of the allergic response by new anti-allergic drugs as bilastine. Bilastine epitomizes the evolution of research on antihistamines concerning both efficacy and safety in humans. Bilastine 20 mg once a day is safe in haptic and renal patient. Bousquet et al reviewed the available literature and found in his study bilastine 20 mg OD in a day improved nasal airway symptoms in allergic rhinitis. Bilastine is low potential for central nervous system. Bilastine has no drug-drug interaction. No drug adjustment need in urticaria and allergic rhinitis patient.26, 27 Bilastine has a fast onset of action, bilastine reach Cmax 30 minutes to 1 hour and his 95 % protein binding ability.22,25,26 Non sedating antihistamine agent has been low lipid solubility.20

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