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THE IMPACT OFHIGH-DOSE DESLORATADINE IN TREATING CHRONIC IDIOPATHIC URTICARIA IN LIBYAN PATIENTS

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ABSTRACT

Chronic idiopathic urticaria it`s a transient vascular reaction pattern characterized by short-lived circumscribed erythematous, edematous and itchy wheals usually lasting for a few hours to few days for a period of at least six weeks without an identifiable causes and its negative influence on the quality of life. It's a disabling affliction that considerably limits patients' daily activities. Desloratadine is a long-acting tricyclic histamine antagonist with selective H1-receptor. and possesses anti-allergic and anti-inflammatory activity. Desloratadine was administrated in conventional and in up to 4 times conventional doses which is recommended by the current European Academy of Allergology and Immunology regarding desloratadine high-doses. **Objective:** To evaluate the effectiveness of desloratadine at high in the treatment of chronic idiopathic urticaria and to provide supportive evidence for the European guidelines regarding high dose desloratadine. **Methodology:** In this study was conducted in 36 Libyan patients, all patients with a diagnosis of chronic idiopathic urticaria. The patients were investigated and examined to rule out any cause. Our patients were divided in three groups12 patients in each group ;(A) Started at the conventional daily dose of 5mg oral desloratadine every day for 20 days. (B) received higher dose of 10 mg and (C) administrated up to 4 times conventional doses (20 mg daily), which is recommended by the current European Academy of Allergology and Immunology. **Result**: All our patients that enrolled in this study has chronic idiopathic urticaria, Patients achieved complete treatment during time period of 20 days, our patients received oral desloratadine in differed doses (5, 10, or 20 mg) every day for 20 days. In this prospective study included 36 patients with Chronic idiopathic urticaria were divided in three groups; in-group (A) 4 of 12 patients became symptom-free with 5 mg of desloratadine. in-group (B) 7 of 12 patients became symptom-free at 10 mg of desloratadine and in-group(C) patients administered higher dose at 20 mg daily and were showed great responses, in 9 of 12 patients becomes symptom-free. **Conclusion** Increasing the dosage of desloratadine up to 4-fold is significantly improve chronic urticaria symptoms and quality of life without compromising safety in approximately about three quarters of patients. and increase desloratadine dosing might benefit patients with Chronic idiopathic urticaria who do not respond to standard dose.

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INTRODUCTION

Chronic idiopathic urticaria is transient vascular reaction pattern characterized by short-lived circumscribed erythematous, edematous and itchy wheals usually lasting for a few hours to few days for a period of at least six weeks without an identifiable causes and its negative influence on the quality of life. It's a disabling affliction that considerably limits patients' daily activities (Grattan *et al*., 2001) Chronic idiopathic urticaria is manifested by the occurrence of itchy wheals daily or almost daily for a period more than six weeks. It is frequently a disabling disease because of the persistence of clinical symptoms, the unpredictable course and its negative influence on the quality of life. Chronic idiopathic urticariais defined by daily presence of urticaria lesions without an identified cause.with an estimated lifetime prevalence of 0.5% of populations (Kozel, 2004). All our patients were investigated thoroughly to rule out any septic focus or other causes of urticaria and their complete blood count, urine and sugar were analyzed before starting the treatment. A general and systemic examination was conducted. Desloratadine is a long-acting tricyclic histamine antagonist with selective H1-receptor. and possesses anti-allergic and anti-inflammatory activity. Desloratadine was administrated in conventional and in up to 4 times conventional doses which is recommended by

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the current European Academy of Allergology and Immunology regarding desloratadine high-doses.

MATERIALS AND METHODS

This present study was based on 36 Libyan patients, 22 females (61%) and 14 males (39%),and the mean age was 34 years (18-64 years. All our patients with a diagnosis of chronic idiopathic urticaria, the average duration of the disease 6 months (3-12months) during the time period from October 2016 to May 2017.The patients were investigated and examined to rule out any causes of the urticaria and their consent was obtained at the initial visit. The patients were divided in three groups12 patients in each group ;(A) Started at the conventional daily dose of 5mg oral desloratadine every day for 20 days. (B) received higher dose of 10 mg and (C) administrated up to 4 times conventional doses (20 mg daily), which is recommended by the current European Academy of Allergology and Immunology.

RESULTS

All our patients were enrolled in the present study has chronic idiopathic urticaria, Patients achieved complete treatment during time period of 20 days, all patients received oral desloratadine in differed doses (5, 10, or 20 mg) every day for 20 days. Thirty six patients with chronic idiopathic urticaria were divided in three groups; in-group (A) 4 of 12 patients(33%) became symptom-free with 5 mg of desloratadine whereas in-group (B) 7 of 12 patients (58%) became symptom-free at 10 mg of desloratadine and in-group(C)9 of 12 patients(75%) became symptom-free with higher dose at 20 mg daily and were showed great response (Fig: 1,2,3). Whereas mild to moderate clinically adverse effects, headache, dizziness, fatigue, myalgia, weakness and somnolence were reported especially in group (C) and less reported in other groups. Significantly beneficial effects and the marked improving of urticaria symptoms and in quality of life were achieved especially in-group (C) with about 80%

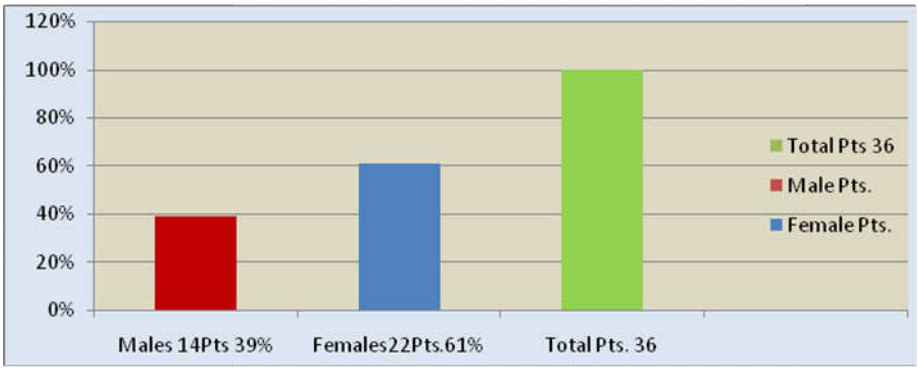

Fig. 1. Total Patients: 36 Patients, 22 females(61%) and 14 males (39%)

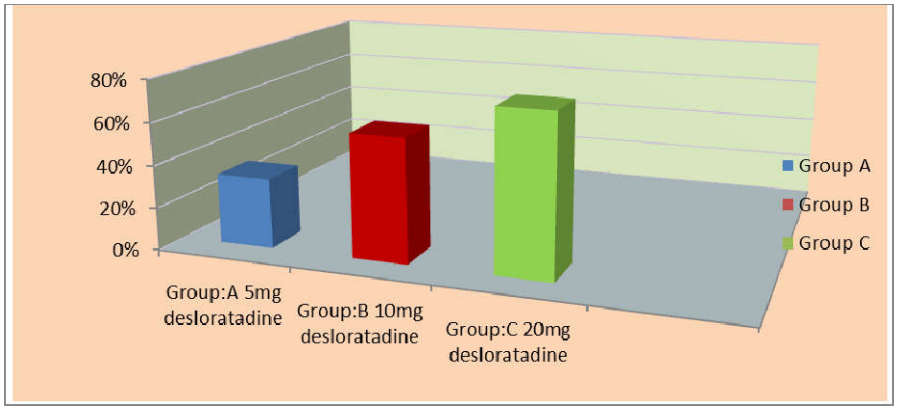

Fig. 2. Desloratadine in different doses: (A: 5mg, B: 10mg and C: 20mg)

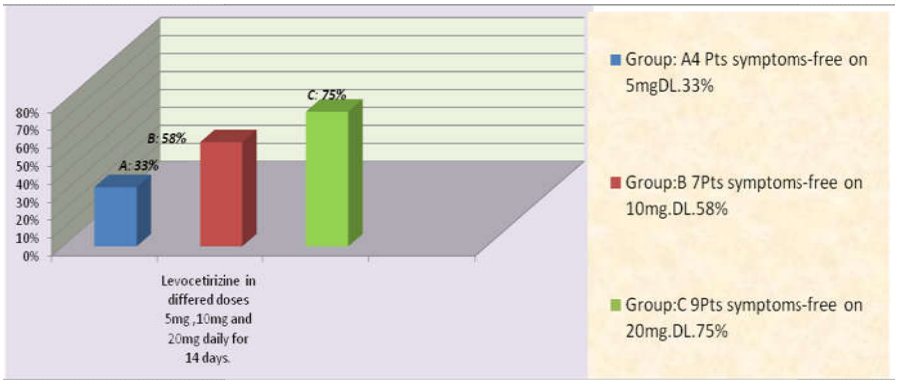

Fig. 3. The responses of desloratadine in different doses: (5mg, 10mg and 20mg.)

symptoms-free at the end of 20 days of the treatment, whereas in-group (B) improvement about 60% and in-group (A) The improvement was achieved only in about 30% of patients. The improvements of urticarial symptoms were assessed every visit, clinically and via patients history and satisfaction.

DISCUSSION

New treatments of chronic urticaria are being developed, but antihistaminic drugs remain the cornerstone of the therapeutic approach of chronic idiopathic urticaria. During recent years new antihistamines one of them desloratadine have been marketed and indicated for the treatment of urticaria andallergic rhinitis with the benefit of a better safety profile (Ring *et al*., 1999; Ring *et al*., 2002; Zuberbier *et al*., 2007). Although individually desloratadine is efficacious forChronic idiopathic urticaria, unique findings in some studies indicate a likelihood of differences between desloratadine in conventional dose and in high doses up to 4times conventional doses (Ortonne *et al*., 2007). Therefore, this study has been conducted to evaluate the therapeutic efficacy and tolerability of different doses of desloratadine in patients suffering from Chronic idiopathic urticaria. The relative absence of data in this domain is an incentive to further explore this aspect of the disease. Despite symptomatic treatment of chronic idiopathic urticaria and ensuring a good quality of life for the patients is challenging to the physicians, an increasing understanding of the path ophysiological mechanisms in the last few decades has revealed the potential of a new generation of antihistamines for the treatment of this condition (Ring *et al*., 1999), Desloratadine have already proved their benefit individually, with a better safety profile, in several clinical trials, Therefore this our present study to prove the evaluation of the efficacy and safety and to thereby choose the better dose of desloratadine in the treatment of chronic idiopathic urticaria.

The baseline data shows that there is significant difference between the conventional dose and in up to 4times conventional doses which recommended by the European Academy of Allergology and immunology regarding desloratadine high-doses, with respect to clinical parameters (Scharf *et al*., 2000), This proves the heterogeneity of efficacy in our present study, desloratadine divided in three doses groups. The female predominance found in this study supports the previous data. Where it has been found that chronic idiopathic urticaria is more common in females (Zuberbier *et al*., 2006). However, the findings in the previous studies regarding desloratadine for chronic idiopathic urticaria by Nettis *et al*., Garg *et al*., and Pfaar *et al*.(2006) supports the findings of our present data. The using of desloratadine in different high doses of the treatment of urticaria and a decrease in the urticarial symptoms, suggest that there isan overall clinical improvement. And clearly prove the superiority of desloratadine in improvement of quality of life and patients' daily activities(Nettis *et al*., 2006; Ortonne *et al*., 2007).That agrees with our outcome. In addition, this finding again confirms the better control of the disease with desloratadine in high different doses than in conventional dose, similar finding was observed by our study. The overall superiority of desloratadine may be attributed to its additional effects such as its inhibits eosinophil adhesion to vascular cell adhesion molecule-1 and Modulation of serum levels, or its ability to inhibit resting and GM-CSF (Wu *et al*., 2005). Although the incidence of adverse effects of desloratadine in the conventional dose group and in high doses groups has been found to be a mostly same. no significant difference between the three groups. The incidence of sleepiness and drowsiness has found to be mild and transient in all different doses of desloratadine(14), This result was nearly equal to our current rates.

Patients consent was obtained: Conclusion Increasing the dosage of desloratadine up to 4-fold, it is significantly improve chronic urticaria symptoms and quality of life without compromising safety in approximately about three quarters of patients, and increase desloratadine dosing might benefit patients with chronic idiopathic urticaria who do not respond to standard doses, no significant adverse effects were reported during the treatment of overdoses. However our study supports guidelines regarding high doses of desloratadine.

Conclusion

Increasing the dosage of desloratadine up to 4-fold, it is significantly improve chronic urticaria symptoms and quality of life without compromising safety in approximately about three quarters of patients, and increase desloratadine dosing might benefit patients with chronic idiopathic urticaria who do not respond to standard doses, no significant adverse effects were reported during the treatment of overdoses. However our study supports guidelines regarding high doses of desloratadine.

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