The American Journal of Medical Sciences and Pharmaceutical Research
(ISSN – 2689-1026)
Published: June 28, 2021 | **Pages:** 59-65
Doi: https://doi.org/10.37547/TAJMSPR/Volume03Issue06-10

IMPACT FACTOR
2021: 5. 64
OCLC - 1121105510

Journal Website: http://theamericanjournals.com/index.php/tajmspr

Effectiveness Of Domestic Preparation Kromoviz In Treatment Of Allergic Conjunctivites

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ABSTRACT

Purpose: to study the efficacy and tolerability of the domestic drug cromoviz in the treatment of allergic conjunctivitis.

The state of the organ of vision in 60 patients (120 eyes) with allergic conjunctivitis was studied. Depending on the therapy, the patients were divided into two groups of homogeneous clinical manifestations. At the same time, the patients of the main group (30 patients) were instilled with the drug Cromoviz (Uzbekistan), 2 drops 4 times a day for 4 weeks. Patients of the control group (30 patients) were instilled with Aycrol according to the same scheme.

The obtained research results showed that the use of the domestic drug cromoviz against the background of basic treatment is expressed in a decrease in subjective complaints of patients and a significant clinical effect in 95.9% of cases. The revealed economic efficiency of the drug action indicates the achievement of the maximum level of therapeutic result at an acceptable price for the patient and therapeutic-prophylactic institution. Cases of side effects and intolerance to the domestic drug cromoviz were not identified in our studies.

KEYWORDS

Allergic conjunctivitis, mast cell membrane stabilizers, sodium cromoglycate, allergic edema, follicles.

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INTRODUCTION

Allergic diseases are the most important medical and social problem of our time, because over the past two decades, the frequency of allergic diseases has increased significantly, especially in economically developed countries and in countries with an unfavorable environmental situation. According to the forecasts of some scientists, the XXI century will become the century of allergic diseases [1].

Over the past 30 years, there has been an exponential increase in the prevalence of many allergic diseases, including allergic conjunctivitis (AK). On average, the prevalence of AK in the world ranges from 15% to 25%, and in children it is close to 40%. According to epidemiological studies conducted in various regions of the world, the prevalence of allergic diseases ranges from 3.3% to 35% and averages 16.5% [3, 11].

The impact on allergic inflammation involves not only the use of pharmacotherapy, but also the implementation of a number of preventive measures. In the case of mild exacerbations that do not require hospitalization in a hospital, treatment is carried out on an outpatient basis under the dynamic supervision of an allergist-immunologist with correction of therapy based on the results of an assessment of the patient's condition in dynamics [9,13].

Non-drug methods of treating allergic diseases include measures aimed at eliminating the causally significant allergen and provoking factors. Elimination of the allergen is a fundamental measure that is applied both at the stage of stopping the exacerbation of the disease and in the subsequent period, and should be carried out in case of any form of allergy. In each individual case, a complex of elimination measures is considered: the appointment of a hypoallergenic diet, the implementation of measures aimed at eliminating or minimizing contact with medicinal, inhalation, insect, food and other allergens. The duration and effectiveness of treatment largely depends on the timeliness of the implementation of elimination measures [5,12].

Traditionally, medicines are selected based on controlled clinical trials. The main goals of therapy are to determine the cause of allergization; prevention of exacerbations of the disease; maintaining a normal level of patient activity, preventing the development of severe forms of the disease, treating concomitant diseases and improving the quality of life [2,4,6,7]. Due to the need for long term use, along with efficiency and safety, availability ofanti-allergic drugs for patients, therefore one of the trends in modern pharmacotherapy of allergic pathology is the increasing use of domestic drugs, which is mainly due to their lower cost, which determined the conduct of this study.

Thus, the treatment of allergic eye diseases is a complex of measures aimed at treating and preventing allergic inflammation and related to drug and non-drug methods of exposure. The use of certain drugs should be balanced and reasonable. Only an integrated approach to the management of patients with allergic diseases can provide the best effect of the therapy [9,12].

Due to the renewal and development of pharmacotherapeutic approaches to treatment of allergic eye diseases, and the lack of domestic local antiallergic drugs on the pharmaceutical market, it becomes necessary to develop and select drugs with an optimal ratio of "effectiveness / safety / cost" [fourteen]...

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The domestic drug Kromoviz (sodium cromoglycate), which we are studying, is a mast cell stabilizer, which includes the disodium salt of cromoglycic acid. The therapeutic effect consists in the membrane-stabilizing action of cromoglyce acid, which prevents the degranulation of mast cells and the release of histamine, bradykinin, leukotrienes (including the slowly reacting substance of anaphylaxis), prostaglandins and other biologically active substances from them. Clinical trials of the drug were carried out on the instructions of the Pharmaceutical Committee and the Bioethics Committee of the Republic of Uzbekistan. According to the results of our research, the drug is approved for use in the republic as an antiallergic agent in the treatment of allergic conjunctivitis (No. 112 / 102OS / 108Uz2018 / 1145) [8].

In connection with the above, the purpose of this study was to study the efficacy and tolerability of the domestic drug Kromoviz in the treatment of allergic conjunctivitis.

MATERIALS AND METHODS

We studied the state of the organ of vision in 60 patients (120 eyes) with allergic conjunctivitis, carried out a thorough collection of complaints and anamnestic data. Distribution of patients by sex: 28 men and 33 women aged 18 to 60 years.

According to the classification scheme developed by Yu.F. Maychuk (1999), depending on the clinical form of allergic lesions, the patients were divided into the following groups: 16 had conjunctival hyperemia, acute allergic edema of the eyelids was noted in 10, follicular conjunctivitis - in 10, papillary conjunctivitis - in 3, blepharoconjunctivitis - in 21 dermatitis of the skin of the eyelids in 3 patients.

Depending on the therapy, the patients were divided into two groups of homogeneous clinical manifestations. At the same time, in the main group (30 patients), the drug Kromoviz was prescribed (eye drops 4%, manufactured by ASEPTICA LLC, Uzbekistan), instillations of 2 drops 4 times a day for 4 weeks. In the control group (30 patients), Ikrol (eye drops, 4%, World Medicine Ophthalmics, Great Britain) were instilled according to the same scheme. The subjects with allergic conjunctivitis also received basic therapy, including general antihistamines.

Ophthalmic research methods are as follows: visometry, examination with focal illumination, biomicroscopy. Along with ophthalmological research methods, to clarify the etiology of the process, allergological tests (scarification tests) for specific allergens were carried out during the period of remission of the disease. Statistical processing of the obtained results was carried out using standard methods of variation statistics using the Student's t-test to assess the significance of differences using Microsoft Excel 2013 (Microsoft Corp., Redmond, WA, USA) on an Intel computer, Pentium Core 2 Duo model.

RESULTS

According to the indicators of allergological tests carried out during the period of remission at the Republican Allergy Center, it was revealed that the main cause of allergic eye damage is weeds (33%), dust - 26%, epidermal allergens - 19%, and polyallergy occurred in 22% of cases.

Patients with allergic edema, eyelid skin dermatitis and blepharoconjunctivitis complained of itching, redness, and foreign body sensation in the eyes (68 eyes). Patients with follicular (8.6%) and papillary (11.8%) forms of the disease mainly complained of

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photophobia, lacrimation, itching, foreign body sensation, filamentous mucous discharge, after removal of which a decrease in symptoms was noted.

Table 1. Objective assessment of patients in the study and control groups with allergic edema and conjunctival hyperemia

Symptom	Control group (n = 30)		Main group (n = 30)	
	2 week	4 week	2 week	4 week
Allergic edema of the eyelids	3 (10%)	-	6 (20%)	-
Conjunctival hyperemia	19 (63.3%)	3 (10%)	20 (66.6%)	7 (25%)

An objective assessment in the main group showed that after two weeks of treatment, in the group of patients with allergic edema of the eyelid conjunctiva, clinical manifestations decreased, and remained only in 20% of cases, which were arrested by the end of treatment (Table 1).

Allergic edema of the eyelids, observed in 5 patients of the control group, by the end of the second week persisted in 10% of cases, by the end of treatment the signs of allergic inflammation were arrested.

Hyperemia of the eyelid conjunctiva in the main group of patients by the end of the second week of treatment was diagnosed in 66.6% of cases, by the end of treatment it persisted in 25% of cases.

Table 2. Objective assessment of patients in the study and control groups with follicular conjunctivitis

Symptom	Control group (n = 30)		Main group (n = 30)	
	2 week	4 week	2 week	4 week
Single follicles	19 (63.3%)	3 (10%)	9 (30%)	-

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Multiple follicles	6 (20%)	1 (3%)	12 (40%)	3 (10%)

In patients of the control group, hyperemia of the eyelid conjunctiva by the end of the second week persisted in 63.3% of cases, by the end of treatment it was noted only in 10% of cases (Table 2).

In the main group of patients with follicular conjunctivitis by the second week of treatment, single follicles were observed in 30% of cases, and by the end of the course of treatment they had resolved. Multiple follicles, by the end of the second week of treatment, persisted in 40% of cases, by the end of 4 weeks - in 10% of cases.

In the control group of patients, single follicles by the end of the 2nd week of treatment were observed in 20% of cases; after 4 weeks of therapy, complete resorption of the follicles was observed. By the 2nd week of treatment, multiple follicles were observed in 40% of cases; by the end of treatment, follicles were observed in 1 patient.

By the end of treatment, the observed patients showed significant positive dynamics and relief of symptoms of allergic inflammation. The effectiveness of treatment was 95.9% and 97.6%, respectively, in the main and control groups.

In the course of treatment, it was revealed that the domestic drug Kromoviz does not have a toxic effect. No side effects were found with its long-term use. The tolerability of the treatment in both groups was assessed as high and amounted to 100%.

When analyzing the degree of subjective complaints, patients of both groups showed an approximately comparable therapeutic effect. Before the start of the study, the leading complaint of patients in both groups was a feeling of sand in the eyes in 77.7 and 78.4%, respectively, in the main and control groups, pronounced conjunctival hyperemia in 36.7% of cases in the main and in 56.7% of cases. in the control group, lacrimation was observed in 36.7% and 40% of patients and itching in the eyes was observed in 56.7% and 40% of patients, respectively.

The analysis of the cost and efficacy of drug treatment was calculated using the formula of Stewart WC, Stewart JA and Mychaskiw MA: sum /% reduction in disease symptoms from baseline during the treatment period (14 days) [14].

1 g - domestic drug Kromoviz 17,000 soums = 17,000 / 90% = 188.8

2 gr - Aykrol 28.729 sum = 28.729 / 93.3% = 307.9

Thus, the studied domestic drug Kromoviz is not inferior in efficiency to the drug aikrol and 1.6 times cheaper than the latter.

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CONCLUSIONS

1. The use of the domestic drug Kromoviz against the background of the basic treatment of patients with allergic conjunctivitis is expressed in the relief of subjective complaints of patients and a significant clinical effect in 95.9% of cases.

2. The economic efficiency of the domestic drug Kromoviz thus revealed indicates that the maximum level of therapeutic result has been achieved at a reasonable price for the patient and therapeutic-prophylactic institution.

3. Cases of side effects and intolerance to the domestic drug Kromoviz were not identified in our studies.

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