## International Journal of Health Systems and Medical Sciences

ISSN: 2833-7433 Volume 2 | No 5 | May -2023



# The Effectiveness of Methotrexate in the Treatment of Non-Infectious Uveitis

#### Juraeva Gulrukh Bafoevna

Bukhara State Medical Institute Named After Abu Ali Ibn Sina

**Annotation:** Non-infectious uveitis is a heterogeneous group of autoimmune diseases, in which, as a rule, it is not possible to detect a specific infectious agent that triggers the inflammatory process in the vascular membrane of the eye. In the etiopathogenesis of non-infectious uveitis, the leading role of immune mechanisms is assumed, which can be initiated by various exogenous (common infections, toxins, medications, eyeball injury, etc.) and endogenous (complement, etc.) stimuli.

In uveitis of autoimmune pathology, immunosuppression affects the uveal membrane of the eye, as well as systemic manifestations of the disease. The appointment of immunosuppressive therapy of uveitis is indicated in the presence of systemic manifestations of the disease. The widespread use of glucocorticoids leads to many side effects and does not allow to control the course of uveitis, which is explained by frequent relapses of the disease, which lead to the development of side effects.

In patients with complicated course of uveitis and with the threat of vision loss, the appointment of metatrexate as immunosuppressive therapy is indicated.

**Keywords:** uveitis, immunosuppression, methotrexate.

#### INTRODUCTION

The incidence of adult uveitis ranges from 15 to 120 people per 100,000 population (from 15 to 38 people per 100,000 population according to 1991-1999). Uveitis is less common in children than in adults: the incidence is 3.5 - 14, 7, the prevalence is 28 - 106 per 100,000 children per year, respectively. Chronic uveitis is more common than acute and accounts for 50-60%. Non-infectious uveitis, in comparison with infectious, represent a larger group of diseases and are more characteristic of developed countries. The frequency and etiological structure of non-infectious uveitis varies significantly in different regions of the world, age and ethnic groups.

Blindness due to uveitis and its complications is observed in 2-15% of patients in developed countries and up to 25% in developing countries, which is 2.8 - 10% of all cases of blindness.

#### **PURPOSE**

To evaluate the efficacy and safety of the use of the immunosuppressive drug methotrexate in the treatment of severe forms of non-infectious uveitis.

#### **MATERIAL AND METHODS**

In the department of the Bukhara branch of the Republican Specialized Ophthalmological Center, 36 patients with severe non-infectious uveitis aged 28 to 55 years were under observation for the period 2020-2022. Of all patients, 21 are male, 15 are female. In the treatment of patients, anti-



For more information contact: mailto:editor@inter-publishing.com

inflammatory therapy was used, parabulbar injections of glucocarticoids were used, mydriatics, nonoid anti-inflammatory drugs were used. The indication for the use of metatrexate was a severe, often recurrent eye condition leading to a vision-threatening course, as well as the development of side effects on glucocorticoids, or their weak effectiveness.

19 patients received antimetabolite methotrexate 7.5 mg once a week orally after 5 days of treatment with parabulbarno glucocorticoids and 10 days of dexamethasone instillation. 17 patients received standard anti-inflammatory treatment with glucocarticoids and non-steroidal anti-inflammatory drugs.

#### **RESULTS**

Methotrexate monotherapy was used in 19 patients with chronic autoimmune recurrent uveitis. Inflammation was stopped in 9, in other cases, prednisolone (10-15 mg / day) was added to therapy within 2 to 3 months from treatment.

A combination of low doses of methotrexate with prednisolone was received by 10 patients with chronic uveitis. Methotrexate was administered together with prednisolone at a dose of 0.5 mg / kg of weight, taking into account the delayed action of methotrexate (1.5-2 months). The dose of prednisone was gradually reduced to maintenance (7.5-15 mg / day). Relief of inflammation by the end of the 8th week was noted in 9 out of 10 patients. The duration of treatment ranged from 8 months to 2 years. Three patients who stopped taking the drug independently developed an exacerbation of uveitis after 1-1.5 months, which had a more severe course and required the appointment of glucocarticoids. Methotrexate was most effective in patients with uveitis associated with rheumatic polyarthritis, as well as other rheumatic uveitis. Planned withdrawal of the drug after 18-24 months was performed in 7 patients: remission of uveitis is noted for 1-3 years in 6 patients. In three cases, exacerbations of uveitis resumed after 6 months, in 2 patients — after 3 months in the form of mild and moderate iridocyclitis. A second course of methotrexate was prescribed to 3 patients. When treated with methotrexate, side effects were noted in 4 patients: leukopenia 1, increased hepatic transaminases 2, headache 3, dyspepsia 2. Withdrawal of the drug was required in 2 patients.

#### **CONCLUSION**

Timely administration of antimetabolite methotrexate is the method of choice in the treatment of severe uveitis and reduces the risk of severe complications and preserves vision. Methotrexate is an effective and safe drug when taking low therapeutic doses in the treatment of uveitis, mainly of rheumatic etiology. The combination of methotrexate with prednisolone makes it possible to achieve earlier relief of the process and reduce the number of relapses and complications.

#### REFERENCES

- 1. Boboeva Rano Rakhimovna « Investigation of Rutan's choleretic activity in drug hepatitis» //International Journal For Innovative Engineering and Management Research 275-278 . Volume-10/Issue-4
- 2. Бобоева Раъно Рахимовна //»Эксперементал ўткир гепатитда силибор ва рутаннинг жигарнинг сафро ажратиш фаолиятига таъсирини бахолаш» // International scientific journal science and innovation (uif: 8.2)
- 3. Бобоева Раъно Рахимовна// "Ўткир токсик гепатит моделида рутаннинг дорилар биотрансформацияси ва глюкуронизациясига таъсирини аниклаш" // International scientific journal volume 1 issue 6 uif-2022: 8.2 | issn: 2181-3337 28-32.
- 4. Boboyeva R.R., Abdulladjanova N.G//// Legalon va rutanning tajribaviy oʻtkir gepatitda jigar biliar funksiyasiga ta'sirini qiyosiy baholash usuli//. Oriental Renaissance: Innovative, educational, natural and social sciences VOLUME 1 | ISSUE 10 ISSN 2181-1784 Scientific Journal Impact Factor SJIF 2021: 5.423 285-295



- 5. Boboeva R.R Mavlonov A.A Jurayeva G.B. "Choleretic activity of rutana at therapeutic application in rats with heliotrin hepatitis" European journal of molecular & clinical medicine, 2020, volume 7 (scopus). 5188-5193
- 6. Бобоева Р.Р Мавлонов А.А Саидов С.А. Худдиева Н.Ю «Исследование желчегонной активности рутана » International journal of discourse on innovation, integration and education 04 | november 2020 70-75
- 7. Mavlonov A.A Boboeva R.R « Study of the hepatoprotective action of rutan » Academicia: an international multidisciplinary research journal https://saarj.com vol. 10 issue 5, may 2020 117-120.
- 8. Бобоева Р.Р. Жураева Г.Б "Холеретичеакая активность ругана при лечебном применении у крыс с гелиотриновым гепатитом" International journal of discourse on innovation, integration and education Volume: 01 issue: 05 | december 2020 issn: 2181-1067 http://summusjournals.uz/index.php/ijdiie
- 9. Мавлонов А.А. Бобоева Р.Р. Хожиев Л.Б. "Изучение гепатопротективного действия рутана" Science, Research, development #30 czestochowa 29.06.2020- 30.06.2020
- 10. Boboeva R.R «Geliotrin gepatiti bo'lgan kalamushlarni davolashda rutanning xoleritik faoliyatini o'rganish» Eurasian journal of academic research innovative academy research support center volume 1 issue 03, june 2021 20-25
- 11. Boboeva R.R «Иследование холеретической активности рутана при лекарственном гепатите» Eurasian journal of academic research innovative academy research support center volume 1 issue 03, june 2021 14-19
- 12. Boboeva R.R «Development of a new method for the treatment of diseases of the hepatopancreatobiary system on the basis of the choleretic activity of rutan.» Oriental renaissance: innovative, educational, natural and social sciences
- 13. G. R. Odilova / / FEATURES OF THE VITREOUS BODY STRUCTURE IN PATIENTS WITH DIABETES MELLITUS //. EUROPEAN JOURNAL OF
- 14. MODERN MEDICINE AND PRACTICE Vol. 2 No. 9 (Sep 2022) EJMMP ISSN: 2795-921X . 29-32.
- 15. Sh. J. Teshaev, G. R. Odilova // Early Morphometric Changes in the Macular Zone of the Retina in Patients with Diabetes Mellitus without Clinical Manifestations of Diabetic Retinopathy// Web of Scholars: Multidimensional Research Journal (MRJ) Volume: 01 Issue: 05 | 2022 ISNN: (2751-7543) http://innosci.org 43-47.
- 16. Odilova G.R // DIABETIC RETINOPATHY AND CATARACT IN CHILDREN WITHTYPE 1 AND 2 DIABETES: CAUSES OF DEVELOPMENT AND PREVALENCE//Journal of Tianjin University Science and Technology ISSN (Online): 0493-2137 E-Publication: Online Open Access Vol:65 Issue:4: 2022 18-25.
- 17. Одилова Г.Р.,Жураева Г.Б.,БобоеваР.Р. Қовоқлар татуажива сунъий киприклар улаш натижасида юзага келадиган кўз юза қаватлари касалликлари Бухоро вилояти кўз касалликлари шифохонаси хамда "Миран" кўз касалликлари шифохонаси клиник мисолларида // Биология ва тиббиёт муаммолари.-2020.-№2(118).-С. 96-98.
- 18. Бобоева Р.Р.,Жураева Г.Б. Талабалар орасида"кўз кизариши" ва "кўзнинг куриш синдроми"нинг учраш даражаси ва сабаблари // Биология ва тиббиёт муаммолари.-2020.- №2(118).-С. 35-37.
- 19. Бобоева Р.Р., Жураева Г.Б. Frequency of identification and reasons for sundrome of dry eyes and red eyes among students // Иновационные подходы в современной науке // Сборник статей по материалам международного научно-практической конференции, 2020.-№9(69 часть2)- С.8-10.

- For more information contact: mailto:editor@inter-publishing.com
- 20. Odilova G.R., Juraeva G.B., Boboeva R.R. Qovoqlar tattuaji va suny kipriklar ulash natizhasida yuzaga keladigan ko`z yuza qavatlari kasalliklari Bukhoro viloyati ko`z kasalliklari shifohonasi hamda "Miran" ko`z kasalliklari shifoxonasi clinic misollarida // Biology va tibbiyot muammolari.-2020.-No. 296-98.
- 21. Boboeva R.R., Juraeva G.B. Talabalar orasida "ko`z qizarishi" va "ko`zning qurish syndromi"ning uchrash darajasi va sabablari // Biology va tibbiyot muammolari.-2020.- №2(118).-p. 35-37.
- 22. Boboeva R.R., Juraeva G.B. Frequency of identification and reasons for sundrome of dry eyes and red eyes among students // Innovative approaches in modern science // Collection of articles based on the materials of the international scientific and practical conference, 2020. No. 9 (69 part 2) -P. 8-10.
- 23. Boboeva Rano Rakhimovna // International Journal For Innovative Engineering and Management Research. Volume-10/Issue-4. // Investigation of Rutan's choleretic activity in drug hepatitis 275-278.
- 24. Boboeva Rano Rakhimovna // Eurasian Journal of Academic Research// Geliotrin gepatiti bo'lgan kalamushlarni davolashda rutanning xoleritik faoliyatini o'rganish. Volume 1 issue 03, june 2021
- 25. Boboeva Rano Raximovna// Central Asian Journal of Medical and Natural Sciences//EYE INJURY IN CHRONIC VIRAL HEPATITIS// Volume: 02 Issue:05
- 26. Бобоева Раъно Рахимовна //»Эксперементал ўткир гепатитда силибор ва рутаннинг жигарнинг сафро ажратиш фаолиятига таъсирини бахолаш» // International scientific journal science and innovation (uif: 8.2)
- 27. Бобоева Раъно Рахимовна// "Ўткир токсик гепатит моделида рутаннинг дорилар биотрансформацияси ва глюкуронизациясига таъсирини аниклаш" // International scientific journal volume 1 issue 6 uif-2022: 8.2 | issn: 2181-3337 28-32.
- 28. Boboyeva R.R., Abdulladjanova N.G//// Legalon va rutanning tajribaviy oʻtkir gepatitda jigar biliar funksiyasiga ta'sirini qiyosiy baholash usuli//. Oriental Renaissance: Innovative, educational, natural and social sciences VOLUME 1 | ISSUE 10 ISSN 2181-1784 Scientific Journal Impact Factor SJIF 2021: 5.423 285-295
- 29. Boboeva R.R Mavlonov A.A Jurayeva G.B. "Choleretic activity of rutana at therapeutic application in rats with heliotrin hepatitis" European journal of molecular & clinical medicine, 2020, volume 7 (scopus). 5188-5193
- 30. Бобоева Р.Р Мавлонов А.А Саидов С.А. Худдиева Н.Ю «Исследование желчегонной активности рутана » International journal of discourse on innovation, integration and education 04 | november 2020 70-75
- 31. Худдиева Н.Ю. Shishasimon tana destruksiyasini konservativ davolashda seavit preparatining samaradorligi. Academic researchineducational sciences ISSN 2181-1385 Volume 2, Issue 10 October 2021 https://slib.uz/ru/journal/view?id=131
- 32. Xuddieva Nargiza Yuldashevna. BIRLAMCHI OCHIQ BURCHAKLI GLAUKOMA KASALLIGIDA SLEZAVIT PREPARATINING NEYROPROTEKTIV TERAPIYANING TARKIBIY QISMI SIFATIDA ISHLATILISHI. Volume 2 Issue 6, June 2022, Pages 508-512 https://oriens.uz/media/journals/ORIENS\_Volume\_2\_\_ISSUE\_6.pdf
- 33. Xuddieva Nargiza Yuldashevna. Slezavit as a component of neuroprotective Therapy for primary open angle glaucoma. Volume: 9/2022 june 18, Pages 93-95 https://geniusjournals.org/index.php/emrp/article/view/1726
- 34. Xuddieva Nargiza Yuldashevna. Pallada preparatining alergik konyunktivit, adenovirusli keratokonyunktivit, va keratokonusni davolashda ishlatilishi. Volume 2 Issue 4, April 2022 Pages 360-364



### International Journal of Health Systems and Medical Sciences

For more information contact: mailto:editor@inter-publishing.com

Volume 2, No 5 | Apr – 2023

- https://www.oriens.uz/journal/article/pallada-preparatining-allergik-konyunktivit-adenovirusli-keratokonjunktivit-va-keratokonusni-davolashda-ishlatilishi/
- 35. Xuddieva Nargiza Yuldashevna. Use of Pallada in the treatment of allergic conjunctivitis, adenovirus keratoconjunctivitis and keratoconus. Volume: 03 Issue: 02| Mar-Apr 2022 Pages 343-346 https://cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/673/621
- 36. Xuddieva Nargiza Yuldashevna. The Effectiveness of the Drug Siavit in the Conservative Treatment of the Destruction of the Vitreous Body. Volume: 02 Issue: 05 | Sep-Oct 2021 ISSN: 2660-4159, 174-182, https://cajmns.centralasianstudies.org/index.php/CAJMNS
- 37. Худдиева Н.Ю. Препарат слезавит в качестве компонента нейропротективной терапии первичной открытоугольный глаукомы. Volume: 24 2022 ISSN: 2545-0573 Pages 832-835 http://www.gospodarkainnowacje.pl/index.php/poland