

Article

Improvement of Methods of Treatment of Retinal Angiopathies of Various Etiologies

Boboeva Rano Rakhimovna¹

¹ Bukhara State Medical Institute Senior Lecturer, Department of Ophthalmology, PhD.

* Correspondence: ranoboboyeva3553@gmail.com

Abstract: This research work was conducted at RIKMIATM Bukhara branch. Patients who came to the hospital with the diagnosis of retinal angiopathy of various genesis were examined and the results of treatment were studied. In the department, 65 patients aged 40-70 years underwent a standard examination and were divided into groups and received conservative treatment methods in an inpatient setting. The results before and after the treatment were analyzed and the effectiveness of the treatment was evaluated.

Key words: retinal angiopathy, trenpentol, oftalek

1. Introduction

Retinal angiopathy is a process of changes in retinal vessels and blood circulation in retinal tissues under the influence of primary pathological processes. Angiopathy is mainly a secondary condition, the main cause of which can be based on ophthalmological or general diseases. According to statistics, more than 80% of those with this diagnosis are elderly people. Such indicators are explained by the fact that the body cannot stop the changes in blood vessels in time during the aging process, therefore, angiopathy appears in different parts of the body and is explained by a violation of blood circulation in organ tissues. In retinal angiopathy, its main morphological feature is inflammation and necrosis of the blood vessel wall, which causes ischemic changes in the retina, and this condition leads to a decrease in vision or its complete loss. The disease often occurs in the later decades of life. [Ermakova N. A. Clinic, etiopathogenesis, lechenie angiitov setchatki: autoref. diss. Dr. Med. science M., 2004.]

Retinal angiopathy is damage to blood vessels, the cause of which is often common diseases (vegetative-vascular diseases, hypertension, diabetes, etc.). Angiopathy is the result of diseases affecting blood vessels throughout the body and usually develops in both eyes at once. Retinal vascular angiopathy often affects men and women equally. It also occurs in children, but is most often diagnosed in people over 30 years of age. Today, specialists are paying maximum attention to these cases, because it often leads to irreversible changes in the function of vision, up to complete blindness. Causes of angiopathy: hypotension or hypertension; atherosclerosis; hyperglycemia in diabetes; autoimmune processes; traumatic causes; hereditary diseases. These conditions can adversely affect the condition of veins and arteries throughout the body. The following

Citation: Rakhimovna B. R. Improvement of Methods of Treatment of Retinal Angiopathies of Various Etiologies. Scholastic Journal of Natural and Medical Education 2024, 3(2), 17-21.

Received: 7th Jan 2023

Revised: 9th Jan 2023

Accepted: 18th Jan 2023

Published: 20th Feb 2024



Copyright: © 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

changes occur in retinal angiopathy: violation of the permeability of the vascular wall; occurrence of vasospasm; thrombosis; formation of atherosclerotic plaques.

Types of Retinal Angiopathies:

1. Hypertensive angiopathy. Changes in the vessels of the fundus of the eye are characteristic of patients with hypertension. When blood pressure is not effectively controlled, changes in the fundus of the eye, characteristic of hypertensive retinopathy, occur.
2. Diabetic angiopathy. In patients with diabetes, there is an increase in the amount of glucose in the blood and a violation of its breakdown. At the same time, its toxic metabolites are formed, which negatively affect the condition of the vascular wall, leading to the formation of atherosclerotic plaques.
3. Hypotonic angiopathy. In this case, there is a decrease in tone in the vessels of the retina, and as a result, nutrition is disturbed.
4. Traumatic angiopathy. Cervical spine injuries, head injuries and other types of traumatic injuries can cause impaired blood circulation in the fundus of the eye.
5. Adolescent angiopathy. It is a disease that occurs before the age of 30 and can be associated with various factors (tuberculosis, toxoplasmosis, and other types of infections). At the same time, vasculitis develops in the fundus of the eye, that is, signs of inflammation in blood vessels are observed with impaired blood circulation in the retina.

Symptoms of angiopathy: headache; having fog in front of the eyes; pain in the eye area; decreased visual acuity; peripheral vision impairment

The purpose of this research is to study methods of treatment of retinal angiopathies of different etiologies in Bukhara Regional Eye Hospital.

2. Materials and Methods

65 patients (130 eyes) were examined in the hospital consultation polyclinic. The age of the patients was 40-70 years, of which 31 (48%) were men, 34 (52%) were women. The distribution of diseases among patients was reflected as follows.

Age	Men (18 people)			Women (16 people)		
	Hypertonic angiopathy	Hypotonic angiopathy	Diabetic angiopathy	Hypertonic angiopathy	Hypotonic angiopathy	Diabetic angiopathy
40-50	3	2	2	3	4	3
51-60	5	1	3	7	2	3
61-70	7	1	7	6	1	5
Total	15	4	12	16	7	11

All patients who applied to the hospital underwent standard ophthalmological examinations (visiometry, refractometry, OST, perimetry, pneumotometry, A-Vscan, ophthalmoscopy, fundus examination). Patients received treatment methods for 10 days in an inpatient setting. Patients were divided into 3 groups. 31 (62 eyes) patients with hypertension in the 1st group - 48%; 11 (22 eyes) - 17% of patients with hypotonic angiopathy in the 2nd group; 23 (46 eyes) - 35% of patients with diabetes in the 3rd group.

During treatment in each group, attention was paid to the level of blood sugar and arterial blood pressure. Each group was divided into 2 subgroups. The 1st group consisted of 31 (62 eyes), of which 15 (30 eyes) had hypertension; patients with hypotonic angiopathy 5 (10 eyes); 11 (22 eyes) patients with diabetic retinopathy. The 2nd group consisted of 34 (68 eyes) people, of which 16 (32 eyes) had hypertension; patients with hypotonic angiopathy 6 (12 eyes); 12 (24 eyes) patients with diabetic retinopathy. 31 patients in the 1st group were treated conventionally. 34 patients in the 2nd group were treated with physiotherapeutic methods in addition to conventional treatment. In the 1st group, in conventional treatment: Sol Trenpental solution 1.0 was injected parabolbar, emsibil solution, ascorbic acid and riboflavin solutions were used for lymphostimulation, and lower jaw lymph nodes were stimulated. Tab. Traikor 1 tab 1 mahal was ordered to drink orally, Sol. Vitolin forte eye drops - 1 drop to 3 mahal drops. In the treatment of the 2nd group: in addition to traditional treatment methods, physiotherapeutic treatment methods (low-frequency magnetotherapy and eye exercises) were used.

Low-frequency magnetotherapy is used to treat eye diseases. This method is based on the principles of the effect of low-frequency alternating electric current on the eyeball. The magnetic peripheral field affects the visual system, improves blood circulation and normalizes microcirculation in all tissues of the eye. Metabolic processes in tissues are improved, which helps to improve and restore vision. Reduces inflammation and swelling around tissues and leaves pain behind. Locally expands blood vessels and improves blood circulation. The first treatment lasts no more than 5 minutes. The duration of the next training is on average from 15 to 20 minutes. The therapy course consists of 20 sessions held daily, continuously. The duration of the procedure and the intensity of the effect are determined by the doctor. In addition, magnetic therapy relaxes the smooth muscles of the peripheral vessels, thereby dilating them. Reduces blood pressure in the body.

3. Results and Discussion

10 (20 eyes)-32% of the 1st group of patients who underwent the treatment course had a visual acuity of 0.1 before treatment; 9(18 eyes) -29% before treatment 0.3; the remaining 12 (24 eyes) - 39% equaled 0.4, and visual acuity after 1 course of treatment was equal to 0.3 in 10 patients, and this effect was maintained for 6 months. 9 had a visual acuity of 0.6, and this effect remained unchanged for 7-8 months and then gradually decreased. The remaining 12 patients had a visual acuity of 0.7 after the first course of treatment. In this case, the effectiveness of the treatment remained unchanged for 6-8 months, and in the following months it began to gradually decrease. 12 (24 eyes)-35% of the 2nd group of patients who underwent a course of treatment had a visual acuity of 0.2 before treatment; 10(20 eyes) - 29% before treatment 0.2; 12(24 eyes) - 36% was equal to 0.3, visual acuity was equal to 0.5 in 12 patients after 1 course of treatment. In 10, the visual acuity was equal to 0.7, and this effect remained unchanged for the next 7-8 months. In the remaining 12 patients, visual acuity was 0.9 after the first course of treatment, and this effect was maintained for 1 year.

Table 1. Treatment results

Number of Patients	Group 1		Number of Patients	Group 2	
	Before Treatment	After Treatment		Before Treatment	After Treatment
10	0,1±0,21	0,3±0,23	12	0,2±0,31	0,5±0,24
9	0,3±0,32	0,6±0,19	10	0,2±0,31	0,7±0,20
12	0,4±0,30	0,7±0,20	12	0,3±0,41	0,9±0,20

4. Conclusion

- 1) Positive results were achieved using a low-frequency magnetic device in combination with the method of lymphostimulation in the treatment of patients with retinal angiopathy treated in an inpatient setting.
- 2) None of the patients who participated in the treatment course had any side effects and the visual acuity of the patients improved significantly.
- 3) As a result of the use of low-frequency magnetotherapy in the treatment of retinal angiopathies, the regenerating properties of eyeball tissues have improved, the strength of the blood vessel wall has increased, and visual function has improved.

REFERENCES

1. Ермакова Н. А. Клиника, этиопатогенез, лечение ангиитов сетчатки: автореф. дисс. ... д-ра мед. наук. М., 2004.
2. Астахов Ю. С., Тульцева С. Н. Этиологические факторы развития тромбоза вен сетчатки у пациентов молодого возраста // Регионарное кровообращение и микроциркуляция. 2004. Т. 3. №4. С. 39-42.
3. Emmi G., Silvestri E., Squatrito D., Amedei A., Niccolai E., D'Elios M. M., ... Prisco D. Thrombosis in vasculitis: from pathogenesis to treatment // Thrombosis journal. 2015. V. 13. №1. P. 1-10. <https://doi.org/10.1186/s12959-015-0047-z>
4. Дроздова Е. А. Иммуносупрессивная терапия неинфекционных увеитов и ретиноваскулитов // Офтальмология. 2014. Т. 9. №2. С. 58-61.
5. Mesquida M., Llorens V., Adán A. New imaging techniques in retinal vasculitis // Medicina Clínica (English Edition). 2017. V. 149. №6. P. 261-266. <https://doi.org/10.1016/j.medcle.2017.08.009>
6. Pelegrín L., Hernández-Rodríguez J., Espinosa G., Llorenç V., Sainz-de-la-Maza M., Fontenla J. R., ... Adán A. Characterization of isolated retinal vasculitis. Analysis of a cohort from a single center and literature review // Autoimmunity reviews. 2017. V. 16. №3. P. 237-243. <https://doi.org/10.1016/j.autrev.2017.01.006>
7. Либман Е.С., Шахова Е.В. Слепота и инвалидность вследствие патологии органа зрения в России // Вестник офтальмологии. — 2006. — №1. С. 35-37.
8. Чичерин Л.П. Ведущие проблемы охраны здоровья детей и подростков // Бюллетень Национального НИИ Общественного Здоровья РАМН. — 2011. №2. С. 17-20.
9. Бобоева Р.Р.//Болаларда рефракцион амблиопияни даволаш усуллари самарадорлигини баҳолаш. // Eurasian Journal of Medical and Natural Sciences Volume 3 Issue 4, April 2023
10. Boboeva R.R. Method of assessment of the effect of silibor and rutan on the liver biliary function in experimental acute hepatitis International scientific and practical conference modern psychology and pedagogy: problems and solution. – 2022. – P. 60-63.

11. Boboeva R.R. Investigation of rutan's choloretic activity in drug hepatitis // International journal for innovative engineering and management research. – Vol. 10. – Issue 03. – apr 2021. – P.275-278.
12. Boboeva R.R. Development of a new method for the treatment of diseases of the hepato-pancreatobiary system on the basis of the choloretic activity of rutan. // Oriental renaissance: innovative, educational, natural and social sciences Volume 2, issue 2022 February 450-458.
13. Evaluating The Effectiveness of Treatment Methods for Refractive Amblyopia in Children. Boboeva.R.R.// Educational research in universal sciences multidisciplinary scientific journal april, 2023
14. S.V. Yanchenko, A.V. Malyshev, Sh.Zh. Teshaeв, L.M. Petrosyan, R.R. Boboeva, G.B. Juraeva. Возможности бесконсервантной терапии первичной открытоугольной глаукомы. **Офтальмология. 2023;20(4):780–786**
15. Оценка влияния силибора и рутана на желчевыделительную активность печени при экспериментальном остром гепатите. Раъно Рахимовна Бобоева. Scientific progress Scientific journal impact factor (sjif 2022=5.016) Volume 4 | issue 2 | 2023 issn: 2181-1601.