

RESULTS OF ASSESSING THE EFFECTIVENESS OF COMPLEX TREATMENT IN PATIENTS WITH STAGES 3-4 HYPERTENSIVE ANGIORETINOPATHY

¹Zhalalova D.Z. ²Shernazarov Farrukh

¹Samarkand State Medical University, associate professor at the Department of Ophthalmology

²Student of group 608 of the Samarkand State Medical University Faculty of Medicine

<https://doi.org/10.5281/zenodo.10391157>

Abstract. The division into the studied subgroups is presented in Table 5.7. The duration of dynamic observation of patients in group 1 was 2 years. The first observation point was based on the data from the initial ophthalmological examination, as well as the results of assessing the level of endothelin-1 in the tear fluid of 15 patients in this group. A follow-up examination was carried out after 2 years, during which endothelin-1 levels in tear fluid were also re-examined in 15 patients in the group.

Keywords: the graphs show that in both groups there was a positive BCVA indicator both at distance and near.

Table 5.7

Studied subgroups of patients with stages 3-4 of HAR.

Group 1 (n =28, 32 eyes)	Group 2 (n = 16, 20 eyes)	Group 3 (n = 10, 10 eyes)
3-4 grades of GAR without signs of macular edema, optic disc edema or neovascularization	4 tbsp GAR with signs of macular edema, optic disc edema or neovascularization	
Standard drug therapy for hypertension with the choice of an antihypertensive drug from the group of ACE inhibitors or ARB II. C special scheme of conservative therapy for GAR: Sermion 30 mg 3 times a day for 2 months Detralex 1000 mg 2 times a day for 2 months. FDP 5.0 IV drop for 5 days. Nucleo and Gliatilin, 1 capsule 2 times a day for 1 month.	Conservative therapy + Panretinal laser coagulation (using green laser)	Conservative therapy + Micropulse laser treatment using yellow laser 577 NM

Table 5.8 shows the dynamics of the main clinical and laboratory indicators. The table shows that in group 1, under the influence of therapy, significant positive dynamics were observed ($p < 0.05$) in terms of CTX, general PD and CFA indicators. At the same time, the decrease in the thickness of the GC-IPL complex was much less pronounced and statistically insignificant. The results also showed that patients with conservative therapy also experienced a significant ($p < 0.05$) decrease in the level of endothelin-1 in the tear fluid.

Table 5.8

Results of a comparative analysis of BCVA, OCT parameters and OCTA signs in group 1 over time.

Indicators	Before treatment	After 2 years
MCOH, in the distance	0.68±0.12	0.74±0.11
PZT, μm	293.7±15.5	260.6±12.2*
CTC, μm	295.5±10.5	269.2±11.2*
GC-IPL, μm	77.8±3.8	76.1±3.5
Total P D	32.1±0.94	34.8±0.75*
CFA, mm ²	1.82±0.06	1.93±0.08*
Endothelin-1, fmol/ml	2.84±0.32	1.88±0.38*

*- significant in relation to the indicators before treatment at $p < 0.05$;

The results of dynamic observation of the results of complex treatment using various types of laser exposure in groups 2 and 3 are shown in the graphs in Figure 5.6.

The graphs show that in both groups there was a positive BCVA indicator both at distance and near. Moreover, in both groups a significant ($p < 0.05$) increase in BCVA was recorded after 15 months of follow-up. There were no statistically significant differences between the final mean BCVA values in the study groups.

The duration of follow-up was 15 months. In both groups, after 2-3 sessions of laser treatment, patients continued treatment according to the appropriate scheme of conservative therapy (Table 5.7).

Since at stage 4 of HAR there was the development of macular edema or significant accumulation of subretinal fluid, the CTS indicator was assessed during dynamic observation. The research results showed that in both study groups there was a positive CV indicator.

At the same time, in both groups a significant ($p < 0.05$) decrease in the indicator was recorded, which indicates a decrease in edema or the volume of subretinal fluid after 15 months of observation.

There were no statistically significant differences between the final average CTS indices in the study groups. This indicates that both types of laser exposure, both PRLC and SMLV using a yellow laser, are an effective additional treatment method for stage 4 GAD.

Dynamic assessment of the CTC indicator showed that despite the fact that in both groups there was a significant ($p < 0.05$) decrease in choroidal thickness, in group 3 the final average indicator was closer to normal values and was significantly lower in comparison with the same indicator in the group 2.

An assessment of OCTA indicators characterizing the state of chorioretinal circulation showed that in the dynamics of the group there were no statistically significant changes in indicators in comparison with the initial indicators, despite some positive dynamics.

In group 3, a significant ($p < 0.05$) increase in the total perfusion density and choriocapillary blood flow zone was established.

This indicates that SMLV using a yellow laser as an addition to conservative therapy has a pronounced positive effect on chorioretinal circulation in stage 4 GAD.

This fact confirms the advantage of this type of laser treatment for HAR in the long term.

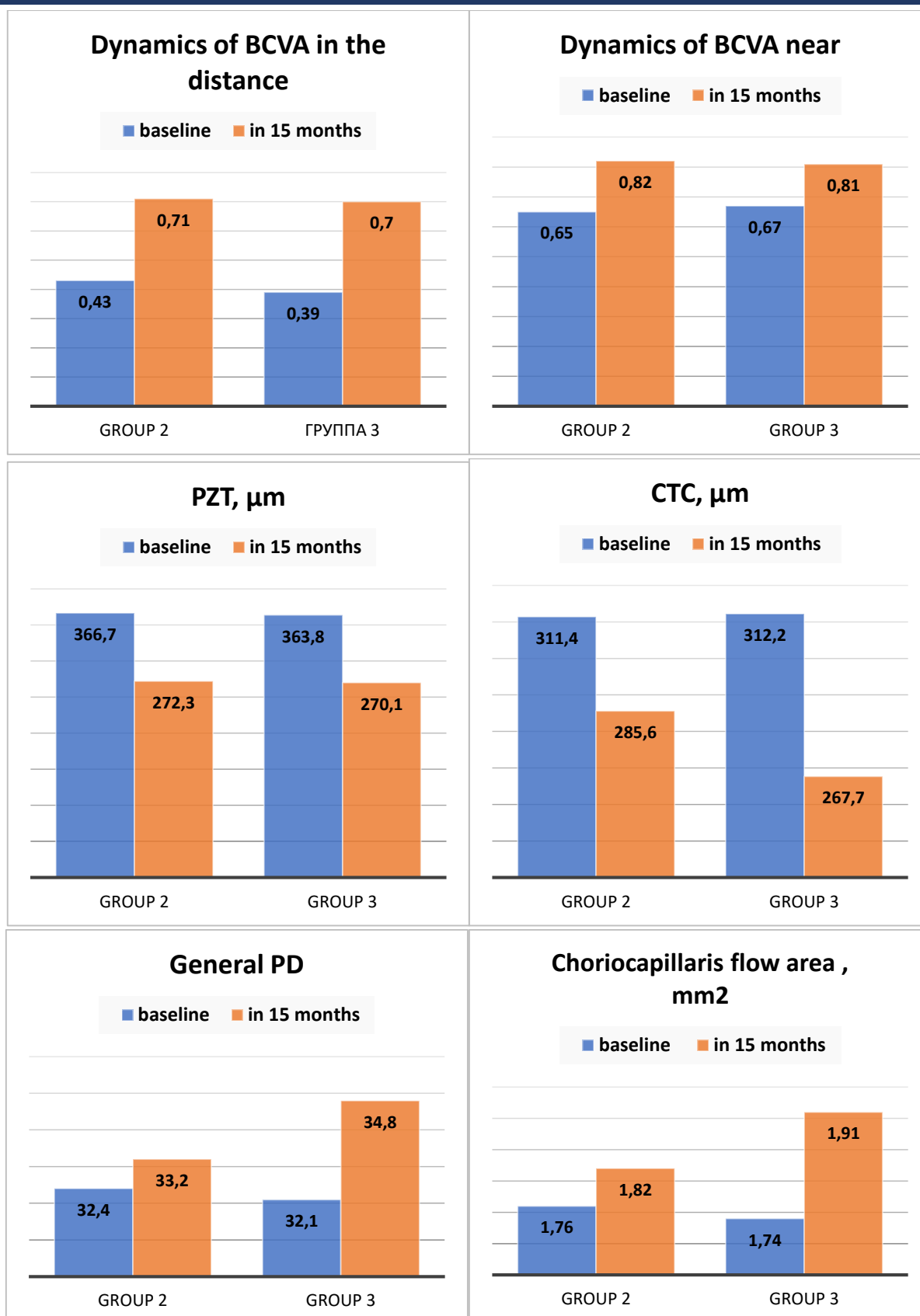


Figure 5.6. Dynamics of the main clinical and functional indicators in patients against the background of complex treatment in groups 2 and 3.

(*-significant in relation to the original indicator ($p < 0.05$);

^-significant in relation to the same indicator in group 2 ($p < 0.05$)).

Conclusion

In conclusion, the results of assessing the effectiveness of complex treatment in patients with stages 3-4 hypertensive angioretinopathy demonstrate the potential benefits of a comprehensive therapeutic approach in managing this advanced stage of the condition. Complex treatment strategies typically involve a combination of medical interventions, lifestyle modifications, and close monitoring of blood pressure and retinal status. The findings indicate that such an approach can lead to positive outcomes, including stabilization or improvement of visual acuity, reduction in retinal edema, regression of retinal hemorrhages, and preservation of retinal function.

REFERENCES

1. Zhalalova D.Z. , Makhkamova D.K. Multicomponent approach to the diagnosis of retinal changes in arterial hypertension Journal “ Problems of biology and medicine” - 2021. No. 5 C - 205-211.
2. Zhalalova D.Z. , Makhkamova D.K. OCT angiography in assessing the vascular bed of the retina and choroid Journal “ Problems of biology and medicine” - 2021. No. 6 C - 211-216.
3. Zhalalova DZ .The content of endothelin and homocysteine in blood and lacrimal fluid in patients with hypertensive retinopathy Web of Scientist:International Scientific Research Journal Volume 3,ISSUE 2,February-2022,C. 958-963
4. Zhalalova DZ Modern aspects of neuroprotective treatment in hypertensive retinopathy Web of Scientist:International Scientific Research JournalVolume 3,ISSUE 2,February-2022,C. 949-952
5. Zhalalova DZDevelopment of classification criteria for neuroretinal ischemia in hypertension Web of Scientist:International Scientific Research Journal Volume 3,ISSUE 2,February-2022,C. 972-978
6. Jalalova D.Z. Classification criteria for changes in retinal vessels in arterial hypertension Journal “ Problems of biology and medicine” - 2022. No. 1 C - 50-53.
7. Zhalalova D.Z. Diagnostic criteria for optical coherence tomography with angiography function for ischemic diseases of the organ of vision against the background of arterial hypertension Journal “ Problems of biology and medicine” - 2022. No. 5 C –73-78
8. Zhalalova D.Z. Evaluation of markers of endothelial dysfunction in tear fluid in patients with arterial hypertension . Journal of Biomedicine in Amaliet. Tashkent - 2022, Volume No., No. WITH.
9. Zhalalova D.Z. OCT angiography in the assessment of retinal and choreoretinal microcirculation in patients with uncomplicated arterial hypertension International Ophthalmological Congress IOC Tashkent 2021, P 95-96
10. Zhalalova D.Z. Modern aspects of neuroprotective treatment for hypertensive retinopathy Journal TMA - 2022. No. 4 P 84-87
11. Shernazarov Farrukh ORGANIZATION OF DIGITALIZED MEDICINE AND HEALTH ACADEMY AND ITS SIGNIFICANCE IN MEDICINE // SAI. 2023. №Special Issue 8. URL: <https://cyberleninka.ru/article/n/organization-of-digitalized-medicine-and-health-academy-and-its-significance-in-medicine> (дата обращения: 20.11.2023).