Original article

UDC: 616.89-008:617-007.681
doi:10.5633/amm.2022.0304

ANXIETY, DEPRESSION AND QUALITY OF LIFE IN PATIENTS WITH GLAUCOMA

Suzana Tošić Golubović[1,3], Hristina Jocić[3], Uroš Gugleta[1], Gordana Nikolić[2,3], Nikola Stojanović[4]

Previous studies have shown significant comorbidity between depressive, anxious disorders, and glaucoma, which is the second most common cause of vision loss in the world. This study aimed to determine the presence of depression and anxiety, assess of the quality of life in patients with glaucoma, as well as to compare with the results of the healthy population. Cross-sectional study, was carried out at the Ophthalmology Clinic, of the University Clinical Center Niš. The presence of anxiety, and depression, were evaluated by Zung's self-rating instruments for anxiety, and depression, and the quality of life was evaluated by the WHO Quality of life instrument-Brief version. Sociodemographic and glaucoma-related parameters were gathered. Around 38.64% of patients with glaucoma presented depression, mostly mild and moderate forms, while mild depression was found in 4.17% of respondents in the control group. The number of patients with anxiety was two times higher in the experimental than in the control group. Mentioned results show a statistically relevant difference ($p < 0.01$). We determined a statistically relevant correlation between the frequency of depression and the severity of glaucoma ($p < 0.001$), while no such correlation was found between anxiety and the severity of glaucoma ($p > 0.05$). While comparing the gathered values for each domain as well as the overall QOL we found a statistically relevant difference ($p < 0.001$). A statistically relevant correlation was found between the patients with milder and more severe glaucoma forms. Comorbid depression and anxiety in patients with glaucoma occur in more severe forms of glaucoma, in patients with a longer duration of the disease for medical and psycho-social reasons.

Acta Medica Medianae 2022;61(3):27-34.

Key words: *anxiety, depression, quality of life, glaucoma*

[1]University Clinic Center Niš, Psychiatric Clinic, Niš, Serbia
[2]University Clinic Center Niš, Center of Mental Health Protection, Niš, Serbia
[3]University of Niš, Faculty of Medicine, Niš, Serbia
[4]University of Niš, Faculty of Medicine, Department of Physiology, Niš, Serbia

Contact: Nikola Stojanović
81 Dr Zoran Djindjić Blvd., 18000 Niš, Serbia
E-mail: nikola.st90@yahoo.com

Introduction

Glaucoma is a chronic, progressive neuropathy of the optic nerve, which leads to changes in the optic disc and visual field loss. It represents an incurable disease, but with the correct medical treatment, further progression and vision loss could be avoided. It is the second-leading cause of blindness worldwide. About 79.6 million people have glaucoma globally, 11.2 million of which are blind (1). The number of patients estimated in Serbia is about 100 000 (2). Previous studies have shown significant comorbidity between depressive, anxious disorders, and glaucoma. The prevalence of anxiety in glaucoma patients is approximately between 13 and 33%, whereas the prevalence of depression is between 10 and 57% (3-6). Depression and anxiety disorders may arise in glaucoma patients due to the fear of potential blindness, the heavy economic burden caused by multiple medications and surgeries, and also impairments in daily activities such as driving (7) and reading (8). Fear of the consequences of glaucoma (blindness), dysfunctionality in family, social surroundings, and professional, social, and economic difficulties, living with chronic, progressive, and debilitating disease, such as glaucoma, lifelong need for treatment and comorbidity with anxiety and depression lead to the lower quality of life in these patients (9, 10). All of these contribute to the poor compliance of these patients, which leads to the worsening of glaucoma. The functional and psychosocial aspects of glaucoma are often neglected. The social stigma of being diagnosed with a mental disorder and the lack of awareness among patients and ophthalmologists may result in the undertreatment of glaucoma patients for their psychiatric comorbidities. Local studies have found that

nonadherence to glaucoma medications in Singaporean patients is associated with lower quality of life (QOL) (11). Therefore, it may be essential to identify, prevent, and treat glaucoma patients with anxiety and depression to improve their QOL and compliance with medication (12, 13). Inspired by all mentioned findings we conducted this study, which aim was to determine the presence of depression and anxiety, as well as the assessment of the quality of life in patients with glaucoma, and comparison of the obtained results with the same results recorded among the respondents from the healthy population.

Material and methods

This cross-sectional study was performed in the Ophthalmology Clinic, University Clinical Center Niš (UCC Niš), at the Glaucoma department. The experimental group consisted of 44 subjects who had already been diagnosed with glaucoma and who had been treated in the mentioned department for years. The next criterion for inclusion in the study, in addition to the above diagnosis, was the age, range of 20 to 80 years, as well as the completion of at least primary education. Respondents suffering from other ophthalmic diseases, chronic somatic diseases, as well as the ones with current psychiatric disorders or psychiatric disorders in their life history, were excluded from the research. The diagnostic sheet, created by the authors, was used for the purpose of collecting sociodemographic data (gender, age, education, place of residence, partnership status, number of children, employment, socioeconomic conditions), as well as the data on the ophthalmologic disease itself, including the following: the degree of glaucoma, which referred to the presence of only ocular hypertension, a mild degree of glaucoma, moderate, severe without visual impairment, severe with visual impairment; mean value of intraocular pressure-IOP; pattern standard deviation-PSD, which is associated with a localized field of view width; MD - mean deviation, which represents the mean difference between normal sensitivity and measured threshold value at all location test points; the presence of hereditary glaucoma; therapy: mono and polytherapy. The following self-assessment questionnaires were also used: Zung's Anxiety Scale, and Zung's Depression Scale, both completed by the respondents themselves, as well as the WHOQOL-Short Quality Assessment Questionnaire. All questionnaires have been translated into Serbian language and standardized for application. A score less than 50 on Zung's depression assessment questionnaire indicated a state without depression, a score greater than 50, and less than 60 indicated a state with mild depression, a score greater than 60 and less than 70 moderate depression, while a score greater than 70 severe depression. A score less than 36 on Zung's anxiety assessment questionnaire indicated no anxiety, while a score greater than 36 indicated the presence of anxiety symptoms. The control group (belonging to the general population) consisted of subjects who were healthy, without any ophthalmological diseases, psychiatric disorders or disease, as well as any other somatic chronic diseases. We tried to harmonize the control group according to the sociodemographic data of the experimental group. Informed consent has been obtained from all study subjects. The research related to human use has complied with all the relevant national regulations, and institutional policies and is in accordance with the Helsinki Declaration and has been approved by the equivalent Ethics committee.

All statistical analyzes were performed in the online free calculator Social Science Statistics. The values of continuous variables are shown by the mean value with standard deviation, while for categorical variables the frequency is shown. Parametric (Student's t-test) and non-parametric (χ^2-test) correlation tests were used to assess statistical relationships among variables. Statistical significance was determined at the level of $p < 0.05$.

Results

The study involved 68 subjects (44 with glaucoma and 24 in the control group). Sociodemographic data are shown in Table 1.

Fifty-two point twenty-seven percent of respondents had a disease dura-tion of 0-5 years and slightly less disease evolution over 5 years. The largest number of respondents, as many as 90.91%, had a bilateral form of glaucoma. We graded the severity of ophthalmic disease into 5 groups: ocular hypertension, where patients had elevated IOP but without morphological and functional impairments, mild, moderate, severe, and severe with visual impairment. The examined ophthalmic data, which are shown in Table 2, were: mean value of intraocular pressure-IOP; Pattern standard deviation-PSD, which is associated with localized loss of function, MD - Mean deviation, which represents the mean difference between normal sensitivity and measured threshold value at all locational test points.

The average quality of life (QOL) in the group of patients was 80.14 ± 17.93, while in the control group the average QOL was 95.46 ± 11.13. Respondents from the group of patients had lower results in all areas of quality of life (physical and mental health, social relations, environmental factors). The quality of life scores are shown in Table 3.

The number of depressed in the group of patients with glaucoma was 17 (38.64%), while in the control group there was 1 depressed subject (4.17%) (Table 3). A statistically significant association was found between the number of depressed patients and the control group ($p < 0.01$). In the group of glaucoma patients, among depressed patients, there were 12 with mild depression (27.27% and 70.59% of all depressed) and 5 with moderate depression (11.36% and 29.41% of depressed, respectively). In the control group, the subject had a mild form of depression. There were no subjects with severe depression. Also, respondents from the group of patients with glaucoma had higher scores on the scale for self-assessment of depression than those from the control group ($p < 0.01$).

Table 1. Sociodemographic data in the examined groups

	Experimental group (%)	**Control group (%)**
Gender distribution		
Men	59.09	45.83
Women	40.91	54.17
Age distribution (years)		
20-30	13.64	16.67
31-40	2.27	4.17
41-50	11.36	12.5
51-60	18.8	20.83
> 60	54.55	45.83
Employment Status		
Employed	40.91	45.83
Unemployed	20.54	20.83
Retired	38.64	33.33
Number of children		
0	18.18	20.83
1	38.4	50
2	25	16.67
3	18.18	12.5
Partnership status		
Without a partner	11.36	12.5
With a partner	4.55	4.17
Married	70.45	70.83
Divorced	4.55	8.33
Widower/Widow	9.09	4.17
Place of residence		
City	79.55	83.33
Rural area	20.55	16.67
Socioeconomic living conditions		
Good	22.73	45.83
Average	75	45.83
Bad	2.27	8.33

Table 2. Ophthalmic parameters

Glaucoma duration in years (%)	
0-5	52.27
5-10	27.27
More than 10	20.45
Glaucoma type	
Bilateral	90.91 %
Unilateral	9.09 %
Average IOP	20.39 ± 2.5
Avg MD in the worse eye	-11.5 ± 9.44
Avg MD in the better eye	-9.31 ± 10.38
Avg PSD in the worse eye	6.82 ± 5.49
Avg PSD in the better eye	6.26 ± 5.16
Hereditary burden	
Yes	34.09
No	65.91
Severity of disease (%)	
Ocular hypertension	15.91
Mild glaucoma	22.73
Moderate glaucoma	29.54
Severe glaucoma	25
Severe glaucoma with damaged vision	6.82
Therapy	
Monotherapy	38.4
Polytherapy	61.36

Table 3. Quality of life, levels of depression and anxiety, severity of depression in the study groups

	Experimental group	**Control group**
Overall quality of life	80.14 ± 17.93	95.46 ± 11.13
Quality of life domains		
Physical health	23.41 ± 6.18	29.17 ± 3.31
Mental health	18.2 ± 5.35	22.96 ± 3.82
Social relations	10.53 ± 3.03	11.71 ± 1.92
Environmental factors	27.57 ± 5.11	30.45 ± 1.3
Degree of severity of depression (%)		
Mild	27.27	4.17
Moderate	11.36	0
Severe	0	0
Percentage of depressed	38.64	4.17
Number of anxious	68.18	37.5

In the group of glaucoma patients, there were 30 anxious subjects (68.18%), while 14 subjects showed no signs of anxiety (31.82%). In the control group, there were 9 anxious (37.5%) and 15 non-anxious respondents (62.5%) (Table 3). A statistically significant association ($p < 0.05$) was found between the frequency of anxiety in the experimental and control groups. We found a statistically significant relationship between the incidence of depression and the degree of glaucoma ($p < 0.001$). These results are shown in Table 4.

When comparing the obtained values between the study and control group, for each domain as well as for the total QOL, we obtained a statistically significant difference (QOL: $p < 0.001$; QOL domain 1: $p < 0.001$; QOL domain 2: $p < 0.001$; QOL domain 3: $p < 0.05$; QOL domain 4: $p < 0.05$). We further calculated the quality of life, total, in each domain in patients with varying degrees of glaucoma severity, where we also obtained a statistically significant difference between the quality of life of patients with mild (ocular hypertension, mild and moderate glaucoma) and severe glaucoma and severe with visual damage. The results are shown in Table 4.

We found that there is a statistically significant relationship between the examined ophthalmic parameters and the presence of depression, and the results are shown in Table 5.

Table 4. Scores for quality of life, total and in each individual domain, percentage of depressed in patients with varying degrees of glaucoma

	Ocular hypertension	Mild glaucoma	Moderate glaucoma	Severe glaucoma without visual damage	Severe glaucoma with visual damage
Overall quality of life	84.86 ± 17.54	90.2 ± 13.39	88.85 ± 5.97	64.18 ± 16.44	56.33 ± 6.13
Quality of life domains					
Physical health	25 ± 6.59	26.9 ± 4.08	25.46 ± 2.79	19.09 ± 6.67	15 ± 1.41
Mental health	19.85 ± 5.44	22.3 ± 4.03	21.15 ± 1.56	14.36 ± 4.68	11 ± 2.45
Social relations	11 ± 2.98	11.2 ± 2.4	12.77 ± 2.23	8 ± 1.65	6.67 ± 0.47
Environmental factors	29 ± 3.7	29.8 ± 4.19	30 ± 2.52	22.73 ± 5.54	23.67 ± 2.05
Percentage of depressed	42.86	10	7.69	81.8	100

Table 5. Average ophthalmic parameters among depressed and non-depressed subjects with glaucoma

	Depressed subjects	Non-depressed subjects	Level of statistical significance (p)
Avg MD in the worse eye	-18.35 ± 9.9	-6.62 ± 9.9	< 0.001
Avg MD in the better eye	-14.36 ± 13.04	-5.6 ± 5.04	< 0.01
Avg PSD in the worse eye	10.51 ± 5.84	4.49 ± 3.68	< 0.001
Avg PSD in the better eye	9.73 ± 5.63	3.69 ± 2.9	< 0.001
Avg IOP	21.94 ± 2.94	19.41 ± 1.5	< 0.001

Ophthalmic parameters, such as the mean value of MD in the eye with the most significant changes, and the mean value of PSD in the better and worse eye, were related to the degree of anxiety, as shown in Table 6. The values of MD in the better eye did not show a statistically significant association with anxiety. IOP values did not show a statistically significant association with the incidence of anxiety.

The duration of the disease was associated with a higher incidence of depression and anxiety, as shown in Table 7. Gender, level of education, and socioeconomic status in this study did not show a statistically significant association with the occurrence of depression and anxiety. A statistically significant relationship was found between the age of the subjects, employment, and the frequency of depression and anxiety, which is shown in Table 7. The degree of glaucoma did not show a statistically significant association with anxiety ($p > 0.05$). The number of drugs used by patients in therapy did not show a statistically significant association with the incidence of depression and anxiety ($p > 0.05$).

Table 6. Average ophthalmic parameters among anxious and non-anxious subjects with glaucoma

	Anxious subjects	Non-anxious subjects	Level of statistical significance (p)
Avg MD in the worse eye	-13.07 ± 10.04,	-7.03 ± 6	< 0.005
Avg PSD in the worse eye	7.94 ± 5.80	4.41 ± 3.73	< 0.05
Avg PSD in the better eye	7.35 ± 5.52	3.72 ± 2.91	< 0.05
Avg IOP	21.94 ± 2.94	19.41 ± 1.5	< 0.001

Table 7. Prevalence of depressed and anxious subjects depending on the duration of glaucoma, age structure, marital and occupational status

	Depressed subjects	**Anxious subjects**	Level of statistical significance (p)	
			depressed	anxious
Duration of illness (years)				
0-5	17.39	52.17	< 0.01	< 0.05
6-10	50	75	< 0.01	< 0.05
>10	77.78	100	< 0.01	< 0.05
Age (years)				
20-30	0	33.33	< 0.05	< 0.05
31-40	0	0	< 0.05	< 0.05
41-50	20	80	< 0.05	< 0.05
51-60	25	50	< 0.05	< 0.05
> 61	58.33	83.3	< 0.05	< 0.05
Professional status				
Employed	16.67	40	< 0.01	< 0.05
Unemployed	33.33	75	< 0.01	< 0.05
Retired	64.77	88.24	< 0.01	< 0.05

Discussion

Anxiety and depression are the most common psychiatric disorders that accompany chronic and progressive somatic diseases. The rate of these disorders in glaucoma patients, according to data from the literature, is often significantly higher compared to other chronic somatic diseases (4-6). The results of our study also showed a statistically significant rate of depression among glaucoma patients in relation to the general population, 38.64% vs. 4.17%. In the group of glaucoma patients, more than two-thirds showed mild depression, and one-third showed moderate, while there were no subjects with severe depression. These results can be explained by the fact that, in the group of the affected, half of them had a disease that lasted from 0 to 5 years, which represents a shorter evolution of the disease, which is claimed in the literature to be associated with a lower degree of depression (14-17). The intensity of glaucoma is associated with the intensity of manifested depression and anxiety (4), which was reported in our study. All subjects with severe glaucoma with visual impairment showed depression, and this prevalence decreased with decreasing degree of glaucoma severity, i.e. in the group with mild glaucoma the incidence of depression was the lowest. The duration of the disease is associated

with a higher incidence of depression and anxiety (12). In our study, the prevalence of depression was highest (77.78%) among subjects who had suffered from glaucoma for more than 10 years. High anxiety was presented by all subjects with a long evolution of the disease. In the group of glaucoma patients, high anxiety was reported in almost twice as many as in the control group, 68.18% vs. 37.5%, which was a statistically significant difference and is in line with data from the literature (3-6).

The average quality of life (QOL) in the group of patients was statistically significantly lower compared to the control group, which is also in line with data from the literature (3, 13, 15). Respondents from the group of patients had lower results in all areas of quality of life (physical and mental health, social relations, environmental factors). We found a statistically significant relationship between the frequency of depression and the degree of glaucoma, as well as the examined ophthalmic parameters that are indicators of disease severity. The intensity of glaucoma causes consequent problems in everyday family and social functioning, as well as the appearance of anxiety related to the future, which is the basis of the appearance of depression. The obtained results are in line with the statement in the literature that the loss of ability to live everyday life (drive a car, read, move independently in and out of the house) is the greatest risk factor for depression in glaucoma patients (7).

Gender of respondents, level of education, and socioeconomic status in our study did not show a statistically significant association with the occurrence of depression and anxiety. A statistically significant relationship was found between the age of the study subjects, employment, and the frequency of depression and anxiety, which is in line with data from the literature (4, 12, 13). Age, sex, poor results when examining the visual field, and the intensity of glaucoma are objective risk factors for depression, which the patient cannot influence (4, 12, 16). Factors of subjective nature, such as compliance, healthy living habits, education about one's illness, and illness acceptance, could be changed and would have positive prognostic and outcome effects on glaucoma (4, 10, 17).

Functional and psychosocial aspects of glaucoma are often underestimated by ophthalmologists, as well as significant comorbidity between glaucoma, anxiety, and depressive disorders, all resulting in a worse prognosis and therapeutic outcome. Therefore, prevention is of extraordinary importance, as is the recognition and treatment of glaucoma patients with comorbid depression, and anxiety, as well as improving the quality of life and thus compliance (17-19).

Conclusion

Comorbid depression and anxiety in glaucoma patients occur in more severe forms of glaucoma, those with a longer duration of the disease due to medical and psychosocial nature. Recognition and treatment of these disorders have a positive effect on improving the quality of life and compliance, and, thus, on the course and outcome of glaucoma.

Acknowledgement

We are grateful to all ophthalmology residents at the Ophthalmology Clinic University of Niš, Serbia, who helped throughout the process of data collection.

References

1. Quigley HA, Broman AT. The number of people with glaucoma worldwide in 2010 and 2020. The British Journal of Ophthalmology 2006;90(3): 262-7. [CrossRef] [PubMed]
2. Marić V. Ispitivanje prediktora za nastanak pseudoeksfolijativnog glaukoma. Doktorska disertacija. Univerzitet u Beogradu Medicinski fakultet; 2019.
3. Tastan S, Iyigun E, Bayer A, et al. Anxiety, depression and quality of life in Turkish patients with glaucoma. Psychol Rep 2010;106:343-57. [CrossRef] [PubMed]
4. Zhou C, Qian S, Wu P, et al. Anxiety and depression in Chinese patients with glaucoma: sociodemographic, clinical and self-reported correlates. J Psychosom Res 2013;75:75-82. [CrossRef] [PubMed]
5. Fasih U, Hamirani MM, Jafri AR, et al. Assessment of anxiety and depression in primary open angle glaucoma patients (a study of 100 cases). Pak J Ophthalmol 2010;26:143-7.
6. Mabuchi F, Yoshimura K, Kashiwagi K, et al. High prevalence of anxiety and depression in patients with primary open-angle glaucoma. J Glaucoma 2008;17: 552-7. [CrossRef] [PubMed]
7. Ramulu PY, West SK, Munoz B, et al. Driving cessation and driving limitation in glaucoma: the Salisbury Eye Evaluation Project. Ophthalmology 2009;116:1846-53. [CrossRef] [PubMed]
8. Ramulu PY, Swenor BK, Jefferys JL, et al. Difficulty with outloud and silent reading in glaucoma. Invest Ophthalmol Vis Sci 2013;54:666-72. [CrossRef] [PubMed]
9. Wang SY, Singh K, Lin SC. Prevalence and predictors of depression among participants with glaucoma in a nationally representative population sample. Am J Ophthalmol 2012;154:436-44. [CrossRef] [PubMed]
10. Mabuchi F, Yoshimura K, Kashiwagi K, et al. Risk factors for anxiety and depression in patients with glaucoma. Br J Ophthalmol 2012;96:821-5. [CrossRef] [PubMed]
11. Loon SC, Jin J, Jin Goh M. The relationship between quality of life and adherence to medication in glaucoma patients in Singapore. J Glaucoma 2015;24: e36-e42. [CrossRef] [PubMed]
12. Skalicky S, Goldberg I. Depression and quality of life in patients with glaucoma: a cross-sectional analysis using the Geriatric Depression Scale-15, assessment of function related to vision, and the Glaucoma Quality of Life-15. J Glaucoma 2008;17:546-51. [CrossRef] [PubMed]
13. Lim NC, Fan CH, Yong MK et al. Assessment of Depression, Anxiety, and Quality of Life in Singaporean Patients With Glaucoma. J Glaucoma 2016; 25(7):1605-12. [CrossRef] [PubMed]
14. Agorastos A, Skevas C, Matthaei M, Otte C, Klemm M, Richard G et al: Depression, anxiety, and disturbed sleepin glaucoma. J Neuropsychiatry Clin Neurosci 2013;25:205-13. [CrossRef] [PubMed]
15. Pelcic G, Ljubicic R, Barac J. et al. Glaucoma, depression and quality of life: Multiple comorbidities, multiple assessments and multidisciplinary plan treatment. Psychiatria Danubina 2017;29(3):351-9. [CrossRef] [PubMed]
16. Pop-Jordanova N, Ristova J, Loleska S: Depression in ophthalmological patients. Prilozi 2014;35(2):53-8. [CrossRef] [PubMed]
17. Kong X, Yan M, Sun X, Xiao Z: Anxiety and Depression are More Prevalent in Primary Angle Closure Glaucoma Than in Primary Open-Angle Glaucoma. J Glaucoma 2015;24(5):e57-63.24. [CrossRef] [PubMed]
18. Kong XM, Zhu WQ, Hong JX, Sun XH: Is glaucoma comprehension associated with psychological disturbance and vision-related quality of life for patients with glaucoma? A cross-sectional study. BMJ Open 2014; 26:4(5):e004632. [CrossRef] [PubMed]
19. Bali SJ, Parmar T, Arora V, et al. Evaluation of major depressive disorder in patients receiving chronic treatment with topical timolol. Ophthalmologica 2011;226: 157-60. [CrossRef] [PubMed]

Originalni rad **UDC: 616.89-008:617-007.681**
doi:10.5633/amm.2022.0304

ANKSIOZNOST, DEPRESIJA I KVALITET ŽIVOTA KOD BOLESNIKA SA GLAUKOMOM

Suzana Tošić Golubović[1,3], Hristina Jocić[3], Uroš Gugleta[1], Gordana Nikolić[2,3], Nikola Stojanović[4]

[1]Univerzitetski klinički centar Niš, Klinika za psihijatriju, Niš, Srbija
[2]Univerzitetski klinički centar Niš, Centar za zaštitu mentalnog zdravlja, Niš, Srbija
[3]Univerzitet u Nišu, Medicinski fakultet, Niš, Srbija
[4]Univerzitet u Nišu, Medicinski fakultet, Katedra za fiziologiju, Niš, Srbija

Kontakt: Nikola Stojanović
Bulevar dr Zorana Đinđića 81, 18000 Niš, Srbija
E-mail: nikola.st90@yahoo.com

Prethodne studije pokazale su značajan komorbiditet između depresivnih i anksioznih poremećaja i glaukoma, koji je drugi najčešći uzrok gubitka vida u svetu. Ova studija imala je za cilj utvrđivanje prisustva depresije i anksioznosti, kao i procenu kvaliteta života bolesnika sa glaukomom, uz upoređivanje ovih rezultata sa rezultatima zdrave populacije. Studija preseka sprovedena je na Klinici za oftalmologiju, Univerzitetskog kliničkog centra Niš. Prisustvo anksioznosti i depresije procenjeno je pomoću Zungovih instrumenata za samoocenjivanje anksioznosti i depresije, a kvalitet života procenjen je pomoću SZO instrumenta za kvalitet života – kratka verzija. Prikupljeni su sociodemografski parametri i parametri vezani za glaukom. Oko 38,64% bolesnika sa glaukomom imalo je depresiju, uglavnom blage i umerene forme, dok je blaga depresija konstatovana kod 4,17% ispitanika u kontrolnoj grupi. Broj bolesnika sa anksioznošću bio je dva puta veći u eksperimentalnoj nego u kontrolnoj grupi. Navedeni rezultati pokazuju statistički relevantnu razliku ($p < 0,01$). Takođe utvrđena je statistički relevantna korelacija između učestalosti depresije i težine glaukoma ($p < 0,001$), dok između anksioznosti i težine glaukoma ($p > 0,05$) takva korelacija nije pronađena. Upoređujući prikupljene vrednosti za svaki domen, kao i ukupni kvalitet života, pronašli smo statistički relevantnu razliku ($p < 0,001$). Utvrđena je statistički značajna korelacija između bolesnika sa blažim i težim oblicima glaukoma. Komorbidna depresija i anksioznost kod bolesnika sa glaukomom javljaju se kod težih oblika glaukoma, kod bolesnika sa dužim trajanjem bolesti iz medicinskih i psiho-socijalnih razloga.

Acta Medica Medianae 2022;61(3):27-34.

Ključne reči: *anksioznost, depresija, kvalitet života, glaukom*