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A NON-SYSTEMATIC REVIEW OF THE QUALITY OF LIFE RESEARCH IN PATIENTS WITH GLAUCOMA

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Introduction: Glaucoma is one of the causes of disability among patients of working age in economically developed countries of the world. According to the WHO, there are currently about 105 million people with glaucoma in the world. The high prevalence, the constant increase in the number of patients, the difficulty of early detection, the complexity of treatment and observation, the high level of disability and the negative impact on the quality of life of patients due to low vision or blindness make glaucoma one of the most important medical and social tasks of modern society and ophthalmological service. The ongoing ophthalmological examinations do not allow assessing the quality of life of glaucoma patients - their ability to visually orient themselves in the environment and perform various types of daily activities related to vision, as well as satisfaction with the quality of vision. The study of the quality of life in patients with glaucoma can provide information on the dynamics of the disease, will allow monitoring the effectiveness and tolerability of the treatment, the development of possible complications.

Objective: is to present a review of the literature data on the quality of life of patients with glaucoma.

Search strategy: The publications search strategy included the search for literature sources on the research topic indexed in the databases of the electronic library e-Library, Pubmed, Web of Science, Scopus, Google Scholar. To compile the review, publications from 2000 to 2021 were studied), the original language is English and Russian. A total of 153 publications were analyzed, 65 articles of which corresponded to the purpose of the study.

Results: According to the results of our study, numerous publications show that in patients diagnosed with glaucoma, the quality of life may deteriorate for many reasons: loss of vision; the complexity of everyday treatment; side effects and cost of treatment; and anxiety, anxiety, and fear associated with a diagnosis of a chronic disease that threatens vision and can compromise the patient's daily activities such as reading, driving, walking, estimating distances, and observing objects approaching from the side. Considering glaucoma as a severe chronic disease leading to an irreversible progressive decrease in visual function and blindness, the importance of the subjective component of the patient's condition based on his survey should be noted. This is due to the fact that vision not only provides orientation in space, but also significantly affects the social and emotional well-being of a person. Therefore, impaired visual function in patients with glaucoma has a negative impact on all indicators of quality of life.

Conclusions: Early detection of glaucoma is vital in clinical management to preserve visual function and quality of life. Patients with early glaucoma often go undiagnosed until progression to advanced stages. This review emphasizes the importance of timely diagnosis of glaucoma for maintaining the quality of life in patients with the problem under study.

Key words: *quality of life, glaucoma, questionnaire, ophthalmology, quality of life assessment, visual field loss, primary open-angle glaucoma, GQL-15, NEI-VFQ-25.*

Резюме

НЕСИСТЕМАТИЧЕСКИЙ ОБЗОР ИССЛЕДОВАНИЙ КАЧЕСТВА ЖИЗНИ У ПАЦИЕНТОВ С ГЛАУКОМОЙ

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Введение: Глаукома является одной из причин инвалидизации среди больных трудоспособного возраста в экономически развитых странах мира. По данным ВОЗ, в настоящее время в мире имеется около 105 млн. лиц, больных глаукомой. Высокая распространенность, постоянный рост числа больных, трудность выявления на ранних стадиях, сложность лечения и наблюдения, высокий уровень инвалидизации и негативного влияния на качество жизни больных из –за слабовидения или слепоты делают глаукому одной из наиболее важных медико–социальных задач современного общества и офтальмологической службы. Проводимые офтальмологические обследования не позволяют оценить качество жизни глаукомных пациентов - их способность к зрительной ориентации в окружающей среде и выполнению различных родов повседневной деятельности, связанных со зрением, а также удовлетворенность качеством зрения. Исследование качества жизни у больных глаукомой может дать информацию о динамике развития заболевания, позволит осуществлять мониторинг эффективности и переносимости проводимого лечения, развития возможных осложнений.

Цель работы: является представление обзора литературных данных по качеству жизни больных с глаукомой.

Стратегия поиска: Стратегия поиска публикаций включала поиск литературных источников по теме исследования, индексируемых в базах данных электронной библиотеки e-Library, Pubmed, Web of Science, Scopus, Google Scholar. Для составления обзора изучали публикации с 2000 по 2021 годы), оригинальный язык – английский и русский. Всего было проанализировано 153 публикаций, из них цели исследования соответствовали 65 статей.

Результаты: По результатам нашего исследования многочисленные публикации показывают, что у пациентов с диагнозом глаукома может ухудшиться качество жизни по многим причинам: потеря зрения, сложность повседневного лечения, побочные эффекты и стоимость лечения; беспокойство и страх, связанные с диагнозом хронического заболевания, угрожающего зрению и может поставить под угрозу повседневную деятельность пациента, такую как чтение, вождение автомобиля, ходьба, оценка расстояний и наблюдение за объектами, приближающимися со стороны. Рассматривая глаукому как тяжелое хроническое заболевание, приводящее к необратимому прогрессирующему снижению зрительных функций и слепоте, следует отметить важность субъективного компонента состояния больного на основе его опроса. Это обусловлено тем, что зрение не только обеспечивает ориентацию в пространстве, но и в значительной мере влияет на социальное и эмоциональное благополучие человека. Поэтому нарушение зрительных функций у больных глаукомой оказывает отрицательное влияние на все показатели качества жизни.

Выводы: Раннее выявление глаукомы является жизненно важной задачей в клиническом лечении, чтобы сохранить зрительные функции и качество жизни. Пациенты с ранней глаукомой часто остаются не диагностированными до прогрессирования до поздних стадий. В настоящем обзоре подчеркивается важность своевременной диагностики глаукомы для сохранения качества жизни у пациентов по изучаемой проблеме.

Ключевые слова: качество жизни, глаукома, опросник, офтальмология, оценка качества жизни, потеря поля зрения, первичная открытоугольная глаукома, GQL-15, NEI-VFQ-25.

Түйіндеме

ГЛАУКОМАМЕН АУЫРАТЫН НАУҚАСТАРДЫҢ ӨМІР САПАСЫН ЗЕРТТЕУДІҢ ЖҮЙЕЛІК ЕМЕС ШОЛУЫ

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Кіріспе: Глаукома әлемнің экономикалық дамыған елдерінде еңбекке қабілетті жастағы науқастардың мүгедектігінің себептерінің бірі болып табылады. Дүниежүзілік денсаулық сақтау ұйымының мәліметі бойынша, әлемде глаукомамен ауыратын 105 миллионға жуық адам бар. Таралу көрсеткішінің жоғары болуы, науқастар санының тұрақты өсуі, ерте анықтаудың қиындығы, емдеу мен бақылаудың күрделілігі, мүгедектіктің жоғары деңгейі және көру қабілетінің нашарлығы немесе соқырлық салдарынан науқастардың өмір сапасына кері

әсерінен глаукома - қазіргі қоғам мен офтальмологиялық қызметтің маңызды медициналық-әлеуметтік міндеттерінің бірі болып отыр. Жүргізілетін офтальмологиялық тексерулер глаукомалық пациенттердің өмір сүру сапасын - олардың қоршаған ортада көру бағдарына және көрумен байланысты күнделікті қызметтің әртүрлі түрлерін орындауға қабілеттілігін, сондай-ақ көру сапасына қанағаттанушылығын бағалауға мүмкіндік бермейді. Глаукомамен ауыратын науқастардың өмір сүру сапасын зерттеу аурудың даму динамикасы туралы ақпарат бере алады, емдеудің тиімділігі мен төзімділігіне, мүмкін асқинулардың дамуына мониторинг жүргізуге мүмкіндік береді.

Зерттеу мақсаты: глаукомамен ауыратын науқастардың өмір сапасы туралы әдебиет деректеріне шолу жасау болып табылады.

Іздеу стратегиясы: жарияланымдарды іздеу стратегиясы e-Library, Pubmed, Web of Science, Scopus, Google Scholar дерекқорларында индекстелген зерттеу тақырыбы бойынша әдебиет көздерін іздеуді қамтыды. Әдебиеттік шолуды құрастыру үшін 2000 жылдан 2021 жылға дейінгі басылымдар зерттелді, түпнұсқа тілі: ағылшын және орыс тілдері. Барлығы 153 жарияланым талданды, оның ішінде 65 мақала зерттеу мақсатына сәйкес келді.

Нәтижесі: Біздің зерттеуіміздің нәтижелері бойынша көптеген жарияланымдар глаукомамен ауыратын науқастардың өмір сүру сапасы көптеген себептерге байланысты нашарлауы мүмкін: көру қабілетінің жоғалуы, күнделікті емдеудің күрделілігі, жанама әсерлері және емдеу құны; көру қабілетіне қауіп төндіретін созылмалы аурумен байланысты алаңдаушылық пен қорқыныш және оқу, көлік жүргізу, серуендеу, қашықтықты бағалау және сыртқы жағынан жақындаған заттарды бақылау сияқты пациенттің күнделікті қызметіне қауіп төндіруі мүмкін. Глаукоманы көру функциясының қайтымсыз үдемелі төмендеуіне және соқырлыққа әкелетін ауыр созылмалы ауру ретінде қарастыра отырып, оның сауалнамасына негізделген науқас жағдайының субъективті компонентінің маңыздылығын атап өткен жөн. Бұл көру тек кеңістікте бағдарлауды қамтамасыз етіп қана қоймайды, сонымен қатар адамның әлеуметтік және эмоционалдық әл-ауқатына айтарлықтай әсер етеді. Сондықтан глаукомамен ауыратын науқастарда көру функциясының бұзылуы өмір сапасының барлық көрсеткіштеріне теріс әсер етеді.

Қорытынды: Глаукоманы ерте анықтау көру функциялары мен өмір сүру сапасын сақтау үшін клиникалық емдеудегі маңызды міндет болып табылады. Ерте сатыдағы глаукомамен ауыратын науқастар көбінесе асқынған кезеңге өткенге дейін диагноз қойылмайды. Бұл әдеби шолуда аталған диагнозбен ауыратын науқастардың өмір сүру сапасын сақтау үшін глаукоманы уақтылы диагностикалау маңыздылығы атап өтіледі.

Түйінді сөздер: өмір сапасы, глаукома, сауалнама, офтальмология, өмір сапасын бағалау, көру аймағының жоғалуы, біріншілік ашық бұрышты глаукома, GQL-15, NEI-VFQ-25.

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Introduction

Among eye diseases, among the causes of irreversible blindness, chronic non-communicable diseases predominate, the first of which is glaucoma. Glaucoma is dangerous eye diseases, characterized by a constant or periodic increase in internal pressure in the eye, the subsequent appearance of characteristic spots in the visual space, the appearance of excitation and swelling of the optic nerve disc, and a decrease in visual acuity or leading to blindness [52].

Worldwide number of people with glaucoma will increase to 111.8 million in 2040, disproportionately affecting people living in Asia and Africa. These assessments are important for the development of screening, glaucoma treatment and related public health strategies [59].

The high prevalence, the constant steady growth in the number of patients, the difficulties of early detection, the complexity of treatment and follow-up, a large number of factors affecting the quality and quality of life of patients due

to low vision or blindness, make glaucoma socially significant diseases in public health [13].

In Kazakhstan, there has been a recent trend towards an increase in blindness and the incidence of glaucoma. Every fifth disabled person (21.6%) is a person of working age, and a third of glaucoma patients are recognized as disabled people of the first group due to complete or complete loss of vision during the initial examination.

The key to successful treatment of glaucoma is the achievement of the normalized intraocular pressure. The key to successful treatment of glaucoma process are the absence of progression of defective visual field and the condition of the the ocular nerve. Thus, reaching the target pressure and stabilization of the glaucomatous process, glaucomatologists believe that they have achieved the main goal of antiglaucomatous treatment. However, ongoing ophthalmological examinations a glaucoma patient is not allowed to analysis the quality of life (QoL) in relation to its health. Their ability to visually orient themselves in the environment and perform various types of daily activities related to vision, as

well as satisfaction with the quality of vision [48,53,56,64]. QoL is determined by the subjective assessment of the physical, mental and social status of an individual. Currently, the issue of taking into account the subjective assessment of visual functions by the patient himself when assessing the effectiveness of treatment is being actively discussed [54,64]. For this purpose, various methods for determining QoL are used, namely, filling out questionnaires during the interview or self-documenting. These questionnaires make it possible to evaluate the visual functional capabilities of patients, which correlate with the results of objective research methods - central and peripheral vision.

A.A. Novik (2007), noted in his research that worldwide tools for analyzing the quality of life of patients are divided into two types: general and specific. These questionnaires have been developed by great scientists who meet the requirements of good clinical practice [9-11].

All existing questionnaires can be divided into the following types: assessing general health, specific to organ systems, and specific to diseases. The first vision-specific questionnaire is The Activities of Daily Vision Scale (ADVS), created in the early 1990s to calculate the impact of cataracts on the visual functions of patients [36]. Later, the National Eye Institute Visual Function Questionnaire (NEI-VFQ) began to be used everywhere to analyze the effect of various ophthalmological diseases on daily activity and QoL of patients [32,37,39,44]. To analyze the QoL of patients with this nosology, the following types of questionnaires were used: The Glaucoma Symptom Scale (GSS), The Viswanathan Questionnaire, The Glaucoma Quality of Life (GQL-15), The Symptom Impact Glaucoma (SIG) and Glaucoma Health Perception Index (GHPI), The Comparison of Ophthalmic Medication for Tolerability (COMTOL) [24, 26, 33, 39, 43, 55, 56, 57].

In the work of S.Y. Antonychev (2003) and E.V. Afanasyeva (2010), believe that it would be better to use special questionnaires to study the quality of life, which should then be validated in all countries in large scientific centers [3,4,6,7].

Analysis of the quality of life with the above pathology - mentioned pathology can provide information on the dynamics of the disease, will allow monitoring the effectiveness and tolerability of the treatment, the development of possible complications [22].

Extensive international experience in the study of QoL shows that this is an exceptionally promising method for clinical studies and medical practice.

Objective: to study a review of non-systematic data on the quality of life of patients with glaucoma.

Search strategy. The publications search strategy included the search for literature sources on the research topic, indexed in the e-Library, Pubmed, Web of Science, Scopus electronic library databases. To compile the review, publications from 2000 to 2021 were studied, the original language is English and Russian. A total of 153 publications were analyzed, 65 articles of which were suitable to the expectation of the study.

This clause is supported on prior research and does not accommodate whatever advanced anthropoid or animal-like studies by whatever of the authors.

Criteria for inclusion of publications for the literature review:

- publications corresponding to the search depth (2000-2021), in Russian and English;

- publications in full-text access, in Russian and English, carrying statistically verified conclusions.

- Evidence level A, B publications: meta-analyses, systematic reviews, cohort and cross-sectional studies.

Criteria for exclusion of publications for literature review:

- summaries of reports, newspaper publications, personal messages;

- opinion of experts in the form of short messages, promotional articles;

- publications with fuzzy conclusions, repeated publications, abstracts and conference proceedings;

- articles with paid access.

Main results and discussion

One of the main criteria for evaluating the effectiveness of providing medical care to the population is the quality of life. It is well known that this approach is important for patients suffering from diseases such as glaucoma, whose social significance is particularly high. In terms of importance and understanding. Our research aims to examine the health of patients with glaucoma in terms of quality of life.

Quality of life with loss of visual function

Loss of visual function is a major factor in the impairment of quality of life in glaucoma and can compromise the patient's day-by-day vigour such as reading, driving, walking, estimating distances, and observing objects approaching from the side [30].

Kim Y.S. et al. (2017) from South Korea affected the consequence of visible syndrome using the Korean version of the Ophthalmic functions questionnaire. Patients the study was divided into six groups. 30, 4% of all patients, complained of visual functions (blurred images, loss of visual fields). It was found that the group with severe visual signs had the worst indicators in terms of the peculiarities of life in general and in the subgroups of social functioning, abnormal health, role problems, servitude and peripheral vision than the team except for visual impairments. Scientists believe it is sufficient to check patients with visual impairments not only for glaucoma, but also for quality of life [31].

Rulli E. et al. (2018) in a group of elderly and elderly patients with glaucoma in Italy, the correlation between visual field loss, lack of vision and the quality of life of patients in this area was studied. Scientists used a special method for this scientific work: that is, they conducted a survey among respondents. 2940 patients were subjected to special NEI-VFQ-25 and GSS surveys to determine the quality of life of patients with eye diseases. During the questionnaire analysis, it was found that patients with visual field impairment had higher quality of life indicators related to vision than a group of patients with visual field impairment in both eyes. In particular, scientists have concluded that bilateral visual field disturbances, despite visual acuity, are related to a reduced due to vision [50].

In a study by Wang Y. et al. (2017) according to research data, a total of twenty-six thousand four hundred and thirty-seven natural population cases and three hundred and six cases of closed-angle glaucoma were identified in the population over forty years of age, including one hundred and thirteen cases of binocular or monocular blindness that caused glaucoma. The results of meta-

analysis of a sample of random effects show that the overall blindness rate is 38.3% [95% confidence interval (28, 1%; 49, 6%)]. In Beijing, where the system of treatment and prevention of diseases is well developed, the level of blindness was significantly lower than in other areas. Compared to previous years, the level of blindness caused by this pathology has significantly decreased in Beijing. Finally, the level of blindness caused by this pathology in mainland China is still high, but the disease treatment and prevention system is effective and worth developing [63].

The low level of qualification of the population about glaucoma, which can lead to possible blindness in rural areas of China, requires careful improvement of the promotion and reporting of glaucoma among the population. In addition, differences between ethnic groups are identified in the the pace of progress of glaucoma among the population [63].

Majernikova L. et al. (2021) constitute that the quality of life of patients with visible stultification is importantly decrease than that of patients without visual impairment ($p < 0.001$). Exploitation the NEI VFQ-25, significant differences ($p = 0.000$) were found in all domains except subscale driving [35].

Quality of life with various treatment methods

Along with traditional indicators of the condition of ophthalmic patients with glaucoma, quality of life parameters carry important information about the effectiveness of treatment and can serve as a criterion in choosing a treatment regimen [12].

Several studies have compared different therapies, using the patient's this measurement as a outcome. Quality of life, when used as an outcome of a study, is an ideal way to evaluate treatment as it is the most important indicator of outcome from the patient's purpose of view.

Belgian scientists *De Keyser M. et al. (2017)* a comparative analysis was made between two variables: the first variable is the quality of life and patient satisfaction with the quality of medical care provided, which are treated at the level of primary health care, and the second variable is patients undergoing selective laser trabeculoplasty surgery. The survey was conducted in 143 patients who underwent selective laser trabeculoplasty. After this operation, satisfaction with the medical care provided was noted among the patients, side effects and complaints of redness of the eyes, lacrimation, soreness decreased. The authors note that the creation of selective laser trabeculoplasty promotes the enhancement of our problems [18].

Fitratul Ilahi et al. (2017) 100 glaucoma patients were assessed for symptoms using the Glaucoma Symptom Scale and their capabilities to perform daily living activities using the questionnaire, as well as their performance in tasks of daily living using the the GQL-15 questionnaire.

The relationship between age, gender, visual acuity, medical and surgical treatment and it was revealed that the QoL of patients was improved by a number of factors. A result from study showed that between respondents with single-sided blindness, bilateral blindness and no blindness, patients with bilateral blindness have a worse quality of life. The QoL is assessed an important part of providing the most appropriate and comfortable vision treatment and improvement in their quality of life is the main goal of improving them [27].

Kuo Y.S. et al. (2017) studied the correlation between the QoL of glaucoma diseases in Nigeria and the socio-economic situation of these sciences. The NEI-VFQ-25 survey on ophthalmological sciences was conducted for 186 respondents. Socio-demographic characteristics (age, gender, place of work, education, marital status, income, place of residence), medical history and ophthalmological indicators are registered. Analysis of respondents' questionnaires, the low level of general health indicators of respondents with a low level of education and monthly income was revealed. After treatment and vision, it was found that the NEI-VFQ-25 is best suited for the mental health and peripheral vision book scale in higher education sciences with secondary education. The patient's monthly salary did not affect the survey results in any way. The researchers note that the achievements in the field of education are jointly open and have a significant positive influence on the QoL of the sciences dealing with glaucoma. In conclusion, he noted that it is very important to increase the level of well-being for this disease among respondents who were identified with low knowledge of glaucoma [34].

Ayele F.A. et al. (2017) in Ethiopia, studied that the money that patients earn is not enough for monitoring and treatment of glaucoma, they explain that the average monthly income is very low, and this is due to the deterioration of vision. Poor awareness of the disease is also a predictor of poor quality of life. The study involved 307 patients with glaucoma and 76 patients with visual impairments using The GQL-15 survey. The average score of quality of life in patients with glaucoma was lower than in patients of the second group. The authors came to the conclusion that, poor quality of life with age (71 years and older), housing in rural areas (55.7%), monthly income (less than 400 rubles), diagnostic time (1-5 years), visual impairment and progressive glaucoma [15].

When studying articles on glaucoma, scientific papers do not describe improvements in the quality of life after operations that reduce intraocular pressure [42,62]. It has been proven that surgical treatment in the first and second stages of glaucoma can lead to deterioration of the physical and mental condition of patients [25].

The influence of psychological disorders in patients on the quality of life

The psychological effects of glaucoma in humans are also important and tend to grow stronger as the illness advances. The relevance of studying mental disorders in patients with glaucoma is due to the fact that patients who are in a state of constant emotional stress due to the threat of imminent blindness are at risk for the development of mental disorders [8].

The patient's awareness of an unfavorable prognosis, despite surgical treatment of glaucoma (*Odberg T, J 2001*), turns the very fact of the disease into a global mental trauma leading to the formation of mental disorders. Violation of psychoemotional well-being affects the course of the glaucoma process and is a risk factor for the progression of glaucoma (*A.R. Illarionova 2003*) [5,45].

Many researchers have identified a relationship between depression anxiety and glaucoma [30,50,53]. One can reasonably assume a higher prevalency of psychological confusion in patients with glaucoma

[17,20,23,65,40]. As a result of its asymptomatic, chronic nature and potentiality consequence of blindness, glaucoma regularly inflicts a psychological burden [28,29]. Restriction of living space due to a variety of factors, such as restricted driving [49,58], fear of falling [21,41] and deterioration of balance [38,46,47], also contribute to the relationship between glaucoma and depression.

In the study of *Frantsuzov L.V et al. (2015)* it was found that chronic somatic diseases develop in patients with certain psycho-emotional characteristics. Patients with glaucoma experience constant psychological stress, high levels of anxiety and depression. Their self-esteem, activity and mood tend to be lowered. Thus, patients with primary open-angle glaucoma have certain psychoemotional characteristics as a result of their chronic somatic disease [14].

The next study took place in *Finland*. A total of 7380 and 5774 finns aged 30 and over with known eye disease status were studied in 2000 and 2011, respectively, in two population-based surveys, including an 11-year follow-up of 4683 participants. Data on HRQoL (EQ-5D-3L, 15D), depression (BDI), psychological distress (GHQ-12), and eye disease diagnoses were obtained from self-reported data. Glaucoma was constitute to be related with worse overall mental health, according to BDI and GHQ-12 results. Visual impairment associated with glaucoma is a dominant factor in reduction the quality of life and mental health [47].

Gothwal et al. (2021) in a cross-sectional study conducted a questionnaire among young people treated glaucoma in early childhood using the World Health Organization Quality of Life Questionnaire of 26 items (questions related to satisfaction with general health, physical, psychological, social relations and environmental aspects) and 5 points. Educational achievement has been constitute to be related with enhanced quality of life and clinicians should emphasize the importance and necessity of training for further care of these patients [23].

Quality of life in old age

Glaucoma is the most severe eye disease leading to irreversible blindness and a widespread pathology among the population of various countries, especially in old age. In this observe the accumulation in the payment of glaucoma treatment is decorous a contemplative social and economic difficulty [1, 16,19,51].

Agarkov N.M et al. (2021) analyzed the quality of life of elderly patients suffering from glaucoma for a long time. In clinical conditions, a survey of 228 glaucoma patients aged 60–75 years, who made up the main group, was conducted. The survey was conducted on a special questionnaire – NEI-VFQ among patients of the above group by direct interviewing. Analysis of the quality of life in elderly patients with glaucoma is of practical importance for organizing an individual treatment and prevention plan [2].

Uenishi Y et al. (2003) studied the quality of life of patients with glaucoma in Japan: 114 patients who belonged to primary health care were examined at the university eye clinic. The age was 47 to 86 years. In conclusion, it turned out that the elderly have a loss of hope for a future life, as well as the consequences of visual impairment caused a greater decrease in the quality of life [61].

Zhang X et al. (2017) conducted a cross-sectional study in two tertiary level hospitals in Malaysia. The first hospital: Universiti Sains Malaysia, Kelantan, and the second

hospital of Yan Village, Selangor. There was an interview with respondents using a verified questionnaire of the Malaysian version of Bahasa Malaysia GlauQol 36. The study included 360 elderly people with glaucoma. It was found that the quality of life and independence of elderly people with glaucoma decrease as the visual field defect increases. In order to improve the quality of life, it is necessary to solve the problems of visual function in these population groups To enhance the quality of life, it is essential to resolve the issues [60].

Considering glaucoma as a severe chronic disease leading to an irreversible progressive decrease in visual function and blindness, the significance of the subjective component of the patient's life condition based on his survey should be noted. Consequently, impaired visual function in patients with glaucoma has a negative impact on all indicators of quality of life.

Conclusions:

The social and economic significance of glaucoma leads us to study the quality of life of patients with two of the most common diseases in ophthalmopathology – cataracts, glaucoma, and identify the features of the quality of life of patients with cataracts, glaucoma before and after surgical treatment. Thus, the study of the quality of life of patients with glaucoma is considered as an urgent problem. The social and economic significance of glaucoma we can say that this is due to an magnification in the specific weight of elderly and senile patients due to an increase in life expectancy. The study of the quality of life of patients with glaucoma is considered a serious social and economic problem for elderly patients suffering from such a disease as glaucoma, which ends in complete blindness.

Glaucoma belongs to the category of chronically ongoing incurable diseases. The fact of the diagnosis of glaucoma determines the lifelong medical examination of this group of patients. From an organizational point of view, the outcome of glaucoma is influenced by: the objective reality of the state of healthcare, the functioning of the ophthalmological service, the lack of access and use of ophthalmological care, irrational planning of medicines for a guaranteed volume of free medical care, the weakening of the part of primary care and prevention, insufficient armament of the main specialists with the methodology of monitoring dynamic observation, the lack of skills in the technique of instilling eye caps in patients spruce and others.

There are practically no works in the our country literature on the effective organization of dynamic observation of patients with glaucoma at the level of primary health care. In Kazakhstan, research works are devoted to the study of the quality of life of patients with ophthalmic diseases, but research works on the assessment of indicators of the quality of life of patients with glaucoma are insignificant. In conclusion, additional further research is needed on this issue.

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