
QUALITY OF LIFE OF PATIENTS WITH BRONCHIAL ASTHMA DEPENDING ON THE CONTROL OF THE DISEASE

DOI: [10.31618/ESU.2413-9335.2019.4.66.313](https://doi.org/10.31618/ESU.2413-9335.2019.4.66.313)**Kuryk L. M.***Senior scientific worker pulmonology department SO
«National Institute Phthysiology and pulmonology
named after F. G. Yanovsky NAMS of Ukraine»,
Kiev, Ukraine***АННОТАЦИЯ**

Многочисленные исследования показали, что бронхиальная астма (БА) влияет как на физическое состояние человека, так и на психологию его поведения, эмоциональные реакции, социальную адаптацию. Оценка качества при хронических заболеваниях позволяет исследовать психосоциальное качество личности, адаптацию пациента к заболеванию, эффективность различных терапевтических программ, что особенно актуально для больных бронхиальной астмой, потому что этой патологией чаще всего страдают молодые, физически активные люди. *Целью исследования* было изучение основных компонентов качества жизни больных бронхиальной астмой в зависимости от контролируемости заболевания. В исследовании приняли участие 480 пациентов с астмой различной степени тяжести и контролируемости. Лёгкая БА была у 92 пациентов, контролируемая средней тяжести БА у 81 пациента, неконтролируемая средней степени БА у 69 пациентов, тяжёлое частично контролируемое течение БА у 95 пациентов, тяжёлое не контролируемое течение БА □ 43 пациента.

Полученные результаты. Установлено, что у пациентов с легкой БА качество жизни не отличается от здоровых. При бронхиальной астме средней степени тяжести не зависимо от контролируемости заболевания основная проблема пациентов, которая, по их мнению, снижала качество их жизни это ограничение физической активности: значительное снижение физической активности, физические проблемы в ограничении качества жизни, а проблемы эмоционального характера отходили на второй план.

При тяжелом течении астмы не зависимо от контролируемости заболевания главной причиной, которая влияла на качество жизни больных это была проблема психоэмоционального характера с явными факторами риска развития депрессии, а снижение физической активности уходило на второй план.

ABSTRACT

Numerous studies have shown that bronchial asthma (BA) affects both the physical condition of a person and the psychology of his behavior, emotional reactions, and social adaptation. Quality assessment in chronic diseases allows you to study the psychosocial quality of a person, patient adaptation to the disease, the effectiveness of various therapeutic programs, which is especially important for patients with bronchial asthma, because this pathology most often affects young, physically active people. The aim of the study was to study the main components of the quality of life of patients with asthma depending on the controllability of the disease. The study involved 480 patients with asthma of varying severity and control. Mild asthma was present in 92 patients, controlled moderate asthma in 81 patients, uncontrolled moderate asthma in 69 patients, severe partially controlled asthma in 95 patients, severe uncontrolled asthma in 43 patients.

Results. It was established that in patients with mild BA, the quality of life does not differ from healthy ones. With moderate asthma, regardless of the controllability of the disease, the main problem of patients, which, in their opinion, reduced the quality of their life, is the restriction of physical activity: a significant decrease in physical activity, physical problems in limiting the quality of life, and problems of an emotional nature went to the second plan. In severe asthma, regardless of the controllability of the disease, the main reason that affected the quality of life of patients was a psychoemotional problem with obvious risk factors for depression, and a decrease in physical activity went by the wayside.

Ключевые слова: бронхиальная астма, качество жизни.

Key words: bronchial asthma, quality of life.

Numerous studies have shown that bronchial asthma (BA) affects both the physical condition of the individual, and the psychology of his behavior, emotional reactions, changing his place and role in social life. The parameters of a patient's illness have independent prognostic significance and are more accurate factors of the prognosis of survival and state of the patient during treatment than the general somatic status. Evaluating the quality of life allows you to compare the effectiveness of different therapeutic programs. In general, we can say that in chronic diseases quality of life □ the main criterion for assessing the patient's condition, psychosocial quality

of the personality play a major role in adapting the patient to the disease, which makes it especially relevant to study it in patients with asthma, because this pathology most often suffering young, physically active people.

The aim of the study was to investigate the nature of the main components of the quality of life of patients with bronchial asthma, depending on the controlling course of disease.

Materials and methods. The study was conducted on the basis of the Pulmonology department SO "National Institute of Phthysiology and Pulmonology named after F. G. Yanovsky National Academy of

Medical Sciences of Ukraine". The study involved 480 patients with asthma of varying severity and control over the course of asthma. Of these, with a mild BA severity of 92 patients, with a controlled average severity of BA 81 patients, with a non-controlled moderate severity of BA 69 patients, with a severe controlled course of BA 95 patients, with a severe non controlled course BA – 43 patients.

The selection of patients according to the severity of asthma was performed in accordance with the criteria of Order № 128 of the Ministry of Health of Ukraine dated March 19, 2007 "On Approval of Clinical Protocols for the Provision of Medical Aid in the Specialty" Pulmonology "and Order №. 868 of the Ministry of Health of Ukraine of October 08, 2013" Unified Clinical protocol of primary, secondary (specialized) medical aid. Bronchial asthma" [1]. As a control, 50 healthy volunteers who had no serious clinically significant pathology were examined. As a questionnaire for determining the quality of life, patients were requested to fill in the general questionnaire SF-36 [2]. To determine the "conditional standard" of quality of life, a common SF-36 questionnaire was used in healthy subjects. Primary data obtained using the SF-36 questionnaire were recorded. The quality of life criteria were calculated

using the SF-36 questionnaire only on the basis of recoding the Likert-based summation method (on a 100-point scale, %). The quality of life guidelines for the SF-36 questionnaire are as follows. Physical functioning, (PF), role-physical (RP), bodily pain (BP), general health, (GH), vitality (VT), social functioning (SF), role emotional (RE), mental health (MH), comparison of well-being, (SS). Respondent's physical status is characterized by 5 scales (PF, RP, BP, GH, VT), psychosocial status was also assessed on 5 scales (RE, SF, MH, GH, VT). The last two indicators are determined by both the physical and mental status of the person. Statistical processing of the material was carried out using the licensed software products included in the Microsoft Office Professional 2000 package, the Russian Academic OPEN NO LEVEL License 17016297 license on the IBM Atlon personal computer in Excel. To verify the normality of data sharing, the method was used by Lapach S. N. and others. (2001) (the function NORMSAMP-1, which is embedded in the Excel environment) [3, 4]. The work was done with public funds.

Results obtained.

The main determinants of the quality of life of healthy are presented in Fig. 1

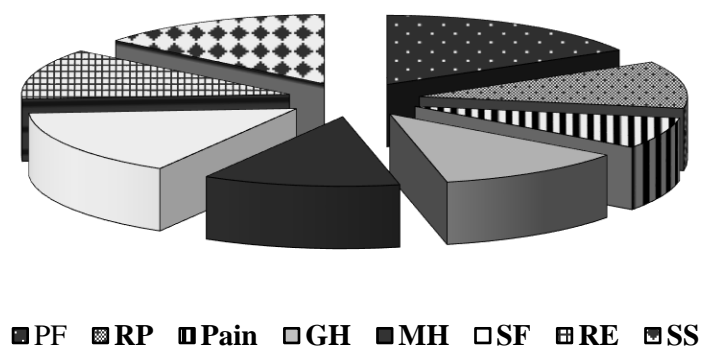


Fig. 1 Structure of the main determinants of the quality of life of healthy people.

Patients with mild persistent course BA, the main determinants of quality of life in disease remission are virtually indistinguishable from those in the healthy group and are stable over long-term six-year dynamic follow-up. The physical activity of the PF was (74.3 ± 2.2) points, the indicator of the role of physical problems of the RP was (56.2 ± 1.6) points, the indicator of emotional problems of RE

(52.9 ± 1.6) points, indicator of the mental sphere: "viability" of VT (54.3 ± 1.4) points and MH (65.9 ± 2.0) points. Indicators of social activity were high SF (73.6 ± 2.0) points, subjective perception of patients with asthma of their general state of health, designated as "general health" of SS was adequate (56.3 ± 1.6) points. The "Pain", (BP) parameter was (34.8 ± 1.8) points (Fig. 2).

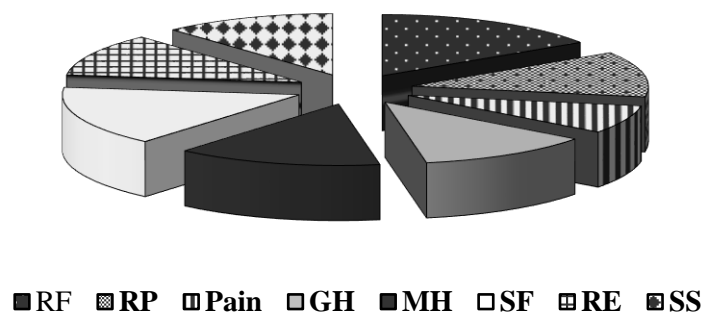
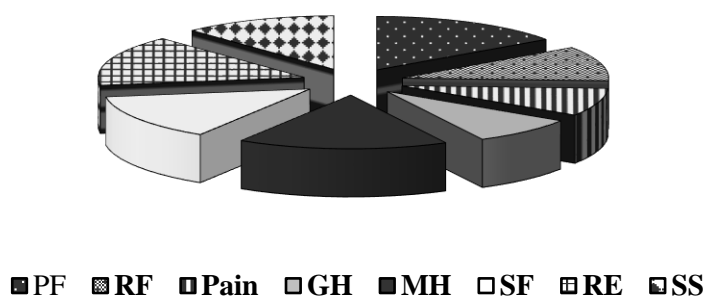


Fig. 2 Structure of the main determinant components of quality of life in the mild course of asthma.

An analysis of the quality of life of patients with asthma with a course of moderate disease showed significant changes compared with the healthy group in the parameters of quality of life, which remained stable during the ten-year dynamic observation in the group with controlled course, significantly worsening with the loss of control. In the controlled course of BA of moderate severity, there was a significant difference in the indicator of physical activity of the PF, which was reduced to (61.3 ± 1.6) points, the indicator of the role of physical problems of the RF was (41.8 ± 1.4) points. However, the

index of emotional problems of RE – (61.1 ± 1.6) points, the indicator of the mental sphere "viability" of VT – (44.3 ± 1.1) points and the "mental health" MH – (65.9 ± 1.5) points. Significantly reduced indicators of social activity SF to (54.9 ± 1.4) points. There was also a significant low subjective perception of asthma patients of the general state of their health, designated as "general health" of GH – (32.8 ± 1.2) points. The parameter "Pain" was virtually indistinguishable from the healthy BP (33.6 ± 1.1) score group (Fig. 3).

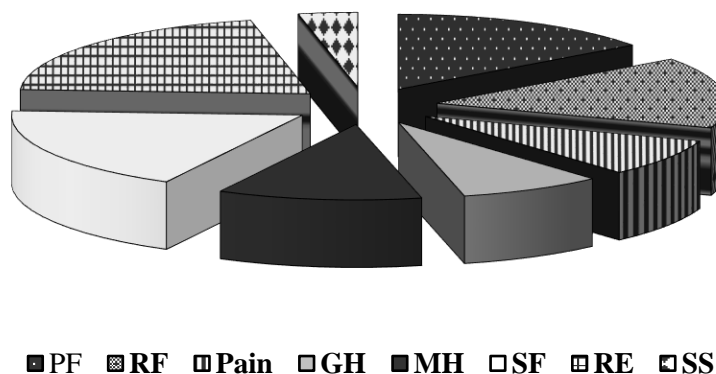


Note. # – the difference between the indicator and the healthy group is probable ($p < 0.05$)

Fig. 3 – Structure of the main determinants of quality of life controlled moderate BA.

In the uncontrolled course of BA of moderate severity, there was a significant difference in the physical activity index of PF, which was reduced to (60.9 ± 1.5) points, the index of the role of physical problems of the RF was increased and amounted to (62.3 ± 1.5) points, the indicator of emotional problems of RE was increased to (84.5 ± 1.8) points, the indicator of the mental sphere "viability" of the gastrointestinal tract decreased VT to (45.2 ± 1.5) points and "mental

health" MH (46.1 ± 1.4) points. Not significantly reduced was the indicator of social activity SF to (73.9 ± 2.5) points, significantly low was the subjective perception of patients with asthma general health status, designated as "general health" of GH z (32.4 ± 1.2) points, the parameter "Pain" practically did not differ from the group of healthy BP – (33.8 ± 1.2) points (fig. 4).

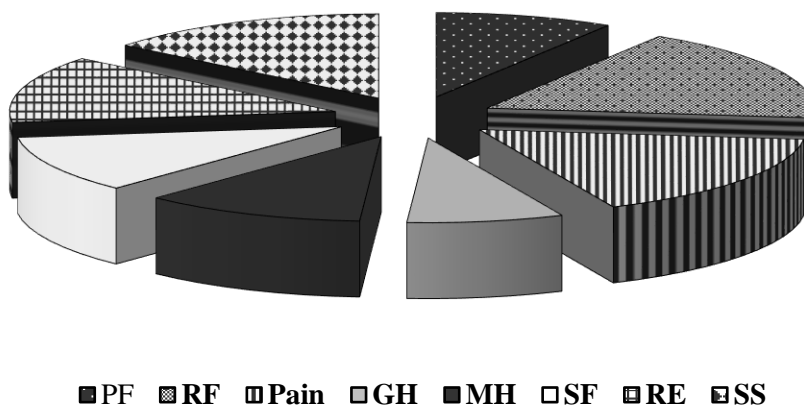


Note. # – the difference between the indicator and the healthy group is probable ($p < 0.05$)
 Fig. 4 – Structure of the main determinant components of quality of life in the severe course of asthma in the phase of exacerbation.

The worst indicators of the questionnaire were in the group of patients with severe bronchial asthma, with significant negative changes over time in some indicators, not in the controlled course of the disease.

In the group of patients with severe controlled course of asthma, the physical activity indicator of PF was significantly reduced up to (40.2 ± 1.8) points, the index of the RF was increased to (81.6 ± 2.9) points,

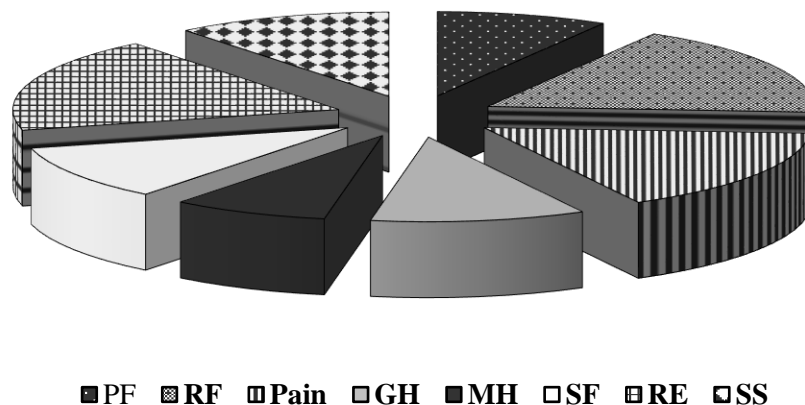
the indicator of emotional problems was significantly increased RE to (84.9 ± 2.2) points, the indicator of the mental sphere was reduced to GH (35.2 ± 1.6) points and "mental health" MH – (50.2 ± 1.6) points, indicator of social activity SF was significantly reduced to (49.3 ± 1.6) points. The "Pain" BP parameter increased significantly to (74.8 ± 2.8) points (fig. 5)



Note. # – the difference between the indicator and the healthy group is probable ($p < 0.05$)
 Fig. 5 The structure of the main determinant components of quality of life severe controlled asthma

In the group of patients with severe non-controlled asthma, the physical activity indicator of PF was significantly reduced up to (39.8 ± 1.6) points, the index of the RF was increased to (82.1 ± 2.3) points, the indicator of emotional was significantly increased of RE problems up to (85.1 ± 2.1) points, the index of

the mental sphere of MH was reduced to (36.3 ± 1.8) points and mental health GH – (49.8 ± 1.8) points, social activity indicator SF was significantly reduced to (48.9 ± 1.5) points, the "Pain" parameter increased significantly to (75.4 ± 2.5) points (fig. 6).



Note. # – the difference between the indicator and the healthy group is probable ($p < 0.05$)

Fig. 6 The structure of the main determinant components of quality of life severe uncontrolled asthma

Conclusion. Therefore, summarizing the results obtained from the study, it is established that in patients with mild persistent disease, quality of life indices do not differ from those in healthy groups. In the course of bronchial asthma of moderate severity, the main problem of patients, which in their opinion reduced their quality of life - it was a limitation of physical activity - the presence of a significantly reduced indicator of physical activity, PF – subjective assessment of his daily load, physical problems in limitation of life – subjective assessment by the respondent of the degree of limitation of their daily activities, caused by the problem of health.

The problems of emotional nature came to the background: not significant growth in the group of the indicator of the role of emotional problems in limiting life activity, RE – subjective assessment by the respondent of the degree of limitation of his daily activity caused by emotional problems and the indicator of mental health the respondent of his happy (happiness, rest, peace, etc.), the indicator of vitality, the GH – subjective assessment of the respondent of his vital tone, when he felt cheerful and full of strength. Therefore, it is the limitation of physical activity that led to the restriction of the social activity of patients - a significant decrease in indicators of general health - subjective assessment by the respondent of the general state of his or her health to the present time as a whole and the indicator of social activity, SF – by the subjective assessment by the level of respondent with friends, relatives, colleagues (level of your social relations). All the above indicators are practically the same in the group with both controlled and uncontrolled course of moderate BA.

In the severe course of asthma in the foreground, in addition to the reduction of physical activity,

problems of psycho-emotional character with obvious risk factors for the development of depression were added, which was confirmed by a significant deterioration of all indicators, which determined the decrease in the quality of life and social activity of such a category of patients, regardless of the control over the course of patients are constantly depressed, anxious and dissatisfied with their health, not believing that supportive therapy helps them and they can control they cannot live an adequate age of social life with realization in society.

Literature

1. Наказ МОЗ України №128 від 19.03.2007 р. «Про затвердження клінічних протоколів надання медичної допомоги за спеціальністю «Ппульмонологія» [Текст]. — Київ : ТОВ «Велес», 2007. — 148 с.
2. Quality of life in asthma. Internal consistency and validity of Sf36 questionnaire [Text] / J. Bousquet [et al.] // Am. J. Respir. Crit. Care Med. – 1994. – № 149. – P. 371 – 375.
3. Бабич, П. Н. Применение современных статистических методов в практике клинических исследований. Сообщение третье. Отношение шансов : понятие, вычисление, интерпретация [Текст] / П. Н. Бабич, А. В. Чубенко, С. Н. Лапач // Український медичний часопис. – 2005. – № 2. – С. 113 – 119.
4. Лапач, С. Н. Статистические методы в медико-биологических исследованиях с использованием Excel [Текст] / С. Н. Лапач, А. В. Чубенко, П. Н. Бабич. – Киев : Морион, 2001. – 320 с.