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Life quality of patients with chronic obstructive pulmonary disease

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Abstract

Introduction and the aim: Chronic obstructive pulmonary disease (COPD) belongs to the group of the most frequent chronic diseases. The major, and at the same time the most crucial goal of the actions undertaken for patients with COPD, is increase in early detection of this disease which will contribute to the decrease in morbidity and mortality. The aim of the study was to assess the quality of life of patients with chronic obstructive pulmonary disease.

Material and methods: The survey was conducted among 100 patients with recognized chronic obstructive pulmonary disease, treated in the Department of Pneumology, Oncology and Allergology, as well as in the Clinic of Pulmonary Diseases and Tuberculosis of the Independent Public Clinical Hospital no. 4 in Lublin as well as in ambulatory way. The research material was collected with help of the questionnaire - St George's Respiratory Questionnaire (SGRQ) for patients with respiratory system diseases.

Results: Data analysis shows that in the range of 50% to 100% there were 72 persons, which indicates low level of life quality. Among 96 respondents, the quality of life in the category "symptoms" fit in the range 50% to 100% while no one fit in the range 0% to 10% which means that none of the respondents has reached the best quality of life in this category. The category of the impact of the disease on daily life obtained the best assessment as 69 respondents fit in the range 50% to 100%.

Conclusions: Majority of respondents assess their quality of life on rather low level. The lowest quality of life was obtained in the category "symptoms". The dyspnoea was the disease symptom that occurred most often among the respondents. Longer duration of the chronic obstructive pulmonary disease was related to the deterioration of patients' quality of life.

Key words: chronic obstructive pulmonary disease, quality of life, patient.

Jakość życia pacjentów z przewlekłą obturacyjną chorobą płuc

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Streszczenie

Wprowadzenie i cel pracy. Przewlekła obturacyjna choroba płuc (POChP) należy do grupy najczęstszych chorób przewlekłych. W Polsce na tą chorobę umiera od 14 do 15 tys. chorych. Głównym, a zarazem najważniejszym celem wszelkich działań podejmowanych wobec chorych na POChP jest zwiększenie wczesnej wykrywalności tej choroby, co przyczyni się do zmniejszenia zachorowalności i śmiertelności. Celem badań była ocena jakości życia pacjentów z przewlekłą obturacyjną chorobą płuc.

Materiał i metoda. Badanie ankietowe zostało przeprowadzone wśród 100 pacjentów z rozpoznaną przewlekłą obturacyjną chorobą płuc, którzy byli leczeni szpitalnie w Klinice Pneumonologii, Onkologii i Alergologii oraz w Poradni Chorób Płuc i Gruźlicy Samodzielnego Publicznego Szpitala Klinicznego nr 4 w Lublinie oraz ambulatoryjnie.

Wyniki. Większość badanych (72%) oceniła swoją ogólną jakość życia na niskim poziomie. Najgorsza ocena dotyczyła kategorii objawów – 96% badanych, natomiast najlepsza ocena wyróżniła kategorię wpływu choroby na codzienne życie i wynosiła 69% respondentów znajdujący się w przedziale od 50% do 100%.

Wnioski. Większość badanych ocenia swoją jakość życia na dość niskim poziomie. Najniższą jakość życia badani uzyskali w kategorii objawów. Spośród symptomów chorobowych najczęściej pojawiała się u respondentów duszność. Dłuższy czas trwania przewlekłej obturacyjnej choroby płuc wiązał się z pogorszeniem jakości życia pacjentów.

Słowa kluczowe: przewlekła obturacyjna choroba płuc, jakość życia, pacjent.

Introduction

Chronic obstructive pulmonary disease (COPD) is a group of the most common chronic diseases. Numerous epidemiological studies show that in Poland the number of people diagnosed with COPD increases steadily. Within a year die of COPD nearly 15 thousand patients. It is estimated that in 2020, chronic obstructive pulmonary disease is the most common cause of death 3 [1,2,3]. Recognition of this disease is very difficult and it is often confused, for example. With asthma. This is because symptoms early in the disease are poorly visible [4,5].

The most common cause of cases of COPD is smoking. This disease develops in approx. 15% of smokers and up to 80% of all patients are smokers [6,3].

COPD is a disease that shortens patients' lives, but also significantly deteriorates its quality. Forcing patients to give up the basic activities of daily living, leaving their homes and often their work. This leads to poor mental state of patients and isolation from the rest of society. It is also important that the treatment of COPD is associated with very high costs, which significantly affects the economic status of patients [7,8,9].

Aim

The aim of the study was to evaluate the quality of life of patients with chronic obstructive pulmonary disease.

Material and methods

The study was conducted among 100 patients diagnosed with chronic obstructive pulmonary disease who were treated with outpatient and hospitalized at the Department of Pneumology, Oncology and Allergology and Clinic of Lung Diseases and Tuberculosis, the Independent Public Clinical Hospital No. 4 in Lublin. Respondents were informed about the purpose and the anonymous nature of the research.

Method was used diagnostic survey and the survey technique was used. For research tools helped Questionnaire Hospital St. George for patients with diseases of the respiratory system (SGRQ), and also by his own questionnaire containing questions on sociodemographic characteristics. Hospital St. questionnaire. George for patients with diseases of the respiratory system (SGQR) is a questionnaire, which was developed by Jones PW, et al. In 1989 in London and consists of 50 questions, which are divided into three groups. The first part includes questions about symptoms of the respiratory system investigated in the past four

weeks, second on the physical activity of the patient, and the third part analyzes the impact of the disease on the patient's functioning in everyday life and in society. Individual responses are assigned The specific number of points. Total number of points is used to calculate the quality of life (QOL, quality of life). The results obtained using a questionnaire SGQR can be between 0 and 100 pts., Where 0 indicates the highest, and 100 with the lowest quality of life.

Among the 46% of respondents were women (n = 46) and 54% of men (n = 54).

The mean age was 64 years (SD = 11.36). The youngest was 41, the oldest 86 years. Respondents aged 65 years or less accounted for 57%, and 43% were over the age of 65 years.

Most respondents was married 54% (n = 54), 17% (n = 17) were widowed, 16% (n = 16) patients were living in the compounds informal and 13% (n = 13) were bride and bachelors .

Less than half of the surveyed - 42% (n = 42) had a professional training. Every fourth - 25% (n = 25) had a secondary, further 17% (n = 17) respondents had basic education and 16% (n = 16) higher education.

Among the respondents was 26% (n = 26) of rural residents, 34% (n = 34), residents of small towns and 40% (n = 40), residents of large cities.

The data were analyzed statistically. Arithmetic mean, and standard deviation. They performed a calculation of the relationships between the various demographic characteristics, and the values of the quality of life in the individual categories which comprises the overall result quality of life. For calculations used Kruskal Wallis and Mann Whitney test. The above calculations were performed using Microsoft Office Excel 2012.

Results

Less than half of the subjects (46%, n = 46) did not smoke at the time of examination, but it has done in the past, 39% (n = 39) patients reported smoking habit, while 15% (n = 15) tested did not burn ever.

Slightly less than half of the respondents (45.5%) indicated that difficulty in breathing lasting three or more days. One quarter of the respondents (24.2%) indicated that they lasted one or two days. Slightly fewer (22.2%) of respondents declared that breathing difficulties lasting a week or more. In addition, 8.1% of respondents stated that the attack lasted less than one day. If there was a heavy attack, the respondent did not give an answer.

Problems with breathing in an average week did not have in the last 4 weeks 6% of respondents. Almost every day breathing problems had 7% of respondents. One in three (35%) respondent stated that such days were 1 or 2 days per week, slightly less (27%) of respondents said that these days it was 3 or 4, and every fourth, that it was not at all.

The analysis of data shows that in 96% of the quality of life for symptoms ranged from 50 to 100%. However, in the range from 0 to 10% it did not fit into any of the subjects, which means that no one has achieved the best quality of life in this category.

Shortness of breath caused among the respondents most often climbing stairs to the upper floor (89%), and least likely respondents pointed to the quiet sitting or lying (18%). Detailed data includes Fig. 1.

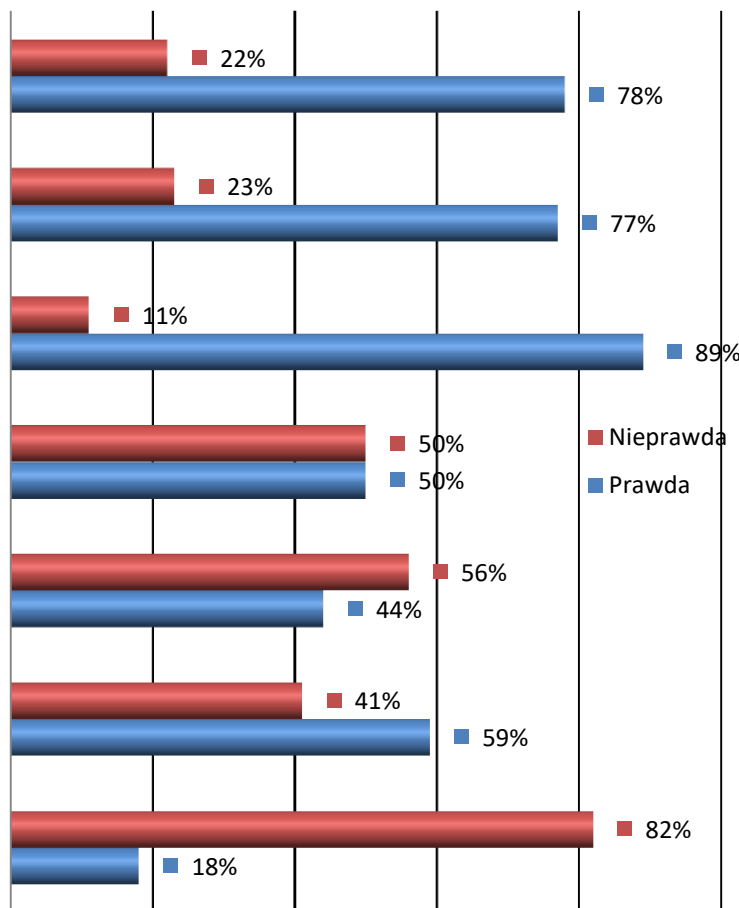


Fig. 11. The rating actions causing shortness of breath among the respondents

Among the activities that respondents pointed out, which may affect respiratory ailments most frequent: to perform such tasks as hard physical work, running, cycling, swimming fast or intense sports (94%); housework (90%); climbing stairs (90%); a quick walk, rush (90%) and

climbing uphill, bringing stuff up the stairs, light gardening, for example. weeding, dancing or bowling (89%).

The analysis of data on the quality of life for the activity shows that in the range of 50 to 100% found 72% of respondents. No respondent was not in the range of 20 to 30%. However, in the range of 0 to 10% 5% were investigated.

Nearly half of the respondents stated that their lung disease the biggest problem. Every third respondent (32%) considered that the disease makes him a lot of trouble. In addition, 16% of respondents declared that lung disease makes them much trouble, and 5% did not consider the disease as a problem.

In the case of 43% of breathing problems were the cause of the cessation of work. Slightly fewer respondents (40%) found that breathing problems affect the work or forced to change it. On the other hand, 17% of respondents said that the problems of breathing does not interfere with work.

Half of the respondents (51%) indicated that the cough causes them pain. Most patients (71%) indicated that the cough tires. Less than half of respondents (40%) declared that when he says, lack of breath. Over half of the subjects (65%) lacked the pants leaning. The majority (72%) of respondents felt that coughing or dyspnoea may preclude them from sleep. The vast majority of respondents (88%) stated that easily gets tired.

The most common problems, which pointed the respondents were convinced that everything requires too much effort (71%), physical exercises are not safe (64%), that is an invalid because of breathing difficulties (64%) and the belief about the lack of opportunities to improve their condition (64%).

The biggest problem in everyday life, the respondents indicated that it was sports or participating in games of movement (82%). Detailed Table 1.

Table 1. Effect of the disease on the functioning of the social sphere

As breathing problems usually affect you / your life?	Truth	Not true
	%	%
I can not practice or participate in sports games motor	82.0	18.0

I can not use entertainment	49.0	51.0
I can not leave home after shopping	42.0	58.0
I can not perform household chores	51.0	49.0
I can not move away from the bed or chair	36.0	64.0

The presented data show that less than half (43%) recognized that the disease It prevents them from performing any activities that would like to do. In turn, 48% of respondents refrained from performing most tasks. Every fourth (25%) refraining from performing one or two activities. In addition, 4% of respondents do not refrained from anything that would do.

The data obtained show that in the range of 50 to 100% is 69% percent of respondents indicating an unsatisfactory quality of life of respondents in this category. Within the range of 0 to 10% is 9% of the respondents. The lowest percentage of respondents is in the range of 30 to 40%.

From the data presented in Table 2 shows that in the range of 50 to 100% is 72% of respondents indicating their low quality of life. The best quality of life has reached 1 person falls within a range from 0 to 10%.

Table 2. Overall Rating the quality of life of respondents

The overall result	n	%
0% - 10%	1	1.0
10% - 20%	8	8.0
20% - 30%	2	2.0
30% - 40%	15	15.0
40% - 50%	2	2.0
50% - 60%	5	5.0
60% - 70%	11	11.0
70% - 80%	23	23.0
80% - 90%	10	10.0
90% - 100%	23	23.0
Altogether	100	100.0

On the basis of the data presented in Table 3 shows that the overall assessment of the quality of life of patients divided into categories averaged 65.66%. Worst rating category

concerned the symptoms - 76.06%, while the best rating category concerned the influence and it amounted to 60.93%. This shows that the greatest impact on the quality of life of patients with COPD have symptoms of the disease.

Table 3. Overall rating of quality of life of respondents broken down by categories

Components SGRQ	Average	Min	Max	Std. Std.
Symptoms	76.06%	24.95%	98.01%	14.73%
Activity	68.25%	0,00%	100.00%	28.31%
Income	60.93%	0,00%	100.00%	31.84%
Altogether	65,66%	7.72%	98.17%	26.26%

Discussion

Proprietary study results were compared to surveys conducted in the years 2008 - 2009 by Catherine Kieczka [10]. Then tested 100 people. The first half of the respondents were people diagnosed with chronic obstructive pulmonary disease, while other patients diagnosed with asthma. The research was conducted in the Department II of Internal Medicine and Pulmonology at the Specialist Hospital in Międzyzlesie and Hospital and Clinic phthisiopulmonologic in Biala Podlaska. The tool used in these studies was Questionnaire Hospital of St. George, the MRC dyspnoea scale and original questionnaire.

The studies included in this study 46% were women and 54% men, while in a study conducted by K. Kieczka women accounted for 55% and men 45%. In our study, the majority - 57% were aged 65 years or less, at the Kieczka 33% were between 50 to 59 years. Most of the respondents lived in the city - 74% (40% in large cities and 34% in small towns), in Kieczka 71%. In our study, most of the surveyed people had vocational education - 42%, in Kieczka while most people had higher education, and it was 38%.

The studies evaluated copyright symptoms occurring within the last 4 weeks of the study, while in Kieczka this period was the last 3 months.

In studies Kieczka 77% of patients suffered from severe or very unpleasant difficulty breathing more than 3 times in the last 3 months, these studies 30% of respondents suffered more than 3 times due to severe or very unpleasant difficulty breathing during the last 4 weeks. In the survey 22% suffered from severe or very unpleasant difficulty breathing 2 times

in the last 4 weeks, Kieczka and 4% suffered from such ailments 2 times in the last 4 months. In these studies examined only one person did not suffer because of this at all, while in Kieczka was 4%.

The hardest running breathing difficulties among respondents by K. Kieczka lasted more than 3 days in 43% of the respondents, while in our study, with 45.5%. More than a week in 31% of those surveyed by Kieczka, while among respondents at 22.2%. Lasting less than one day running hard breathing ailments reported by 8% of respondents Kieczka. In these studies, the percentage was very similar, as was 8.1%. In our study, 24.2% of respondents said that difficulty breathing lasted one or two days during the last 4 weeks, and in Kieczka was 19%. In addition, studies conducted in the work 1 respondent did not suffer from such problems at all, so I answered.

According to Kieczka, according to research conducted by her disease is the biggest problem for 52% of the respondents, 30% of patients the disease causes a lot of trouble. In our study, the percentage distribution is very similar, because 47% of respondents said that the lung disease is their biggest problem, while 32% believed that the disease makes him a lot of trouble.

Breathing problems do not affect or not affect the performance of work in 49% of the respondents according to the study Kieczka, while in our study answered that only 17% of patients.

Another group of questions concerned the difficulties that are caused by problems with their breathing. According Kieczka cough or breathing problems are embarrassing for 61%, while in our study, 44%. 42% of those surveyed by Kieczka said that the disease is burdensome for their loved ones (family, friends, neighbors), and surveys the proportion accounted for 60%. At the time of inability to breath in a breath panic falls by 47% of the surveyed Kieczka and 48% above tests. A very similar proportion in Kieczka claimed that their disease eludes them out of control, and in our study answered that 53% of respondents. Because a very large percentage, up to 85% of those surveyed by Kieczka said that due to illness became invalids, and surveys answered as 64%. More than 70% of K. Kieczka said that all of them require too much effort, and that exercise is dangerous for them. In our study, the percentage was 64% in both of these questions.

Conclusions

1. The majority of respondents assess their quality of life at a fairly low level (above 70%).
2. The lowest quality of life of the subjects received in the category of symptoms.
3. The respondents indicated the greatest impact on symptoms to perform such tasks as hard physical work, running, cycling, swimming fast or intense sports.
4. Most preferably, the fell in the assessment of the quality of life category influences. Maintaining mental and physical activity of patients requires a lot of effort, and the majority of respondents are aware of the disease and does not expect an improvement in their condition.
5. Patients with COPD in the vast majority of smoked tobacco in the past.

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