The influence of Parkinson's disease on the quality of life - review of the literature and retrospective study

Wpływ choroby Parkinsona na jakość życia - przegląd piśmiennictwa oraz badanie retrospektywne

INTRODUCTION

Parkinson’s disease is the most common degenerative disorder of a central nervous system, which is the result of the loss of dopaminergic neurons. Dopamine is a chemical substance, which is responsible for transmission of signals between the substantia nigra and corpus striatum in the telencephalon [18]. First medical description of the disease was presented in 1817 by James Parkinson, a London physician. In a publication entitled "As essay on shaking palsy” he described the early symptoms of the disease, which included rigidity, tremor and bradykinesia. Subsequent symptoms, such as cognitive and behavioral disorders, depression, fatigue, difficulties in speech and coordination were considered as a late manifestation of the disease [4].

The incidence of PD in the population over 55 years of age is about 1% and over 75 years of age - 3% [15]. The mean age of onset is 60 years, whereas in 5% of cases, familial occurrence is observed [17]. The purpose of the treatment in PD is restoration of dopamine secretion and consequently reducing the adverse effects of the disease on patients Quality of life (QoL) [21].
Quality of life in Parkinson’s disease

The concept of quality of life is ambiguous and depends on social and total cultural differences of social standards. According to the World Health Organization (WHO) quality of life is “an individual perception of the individual’s position in life in the context of cultural and value systems, in which they live and in relation to the tasks, expectations and standards set environmental consideration”. The concept of quality of life is closely related to the definition of health. As defined by WHO it is “a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity” [27;28].

We can distinguish a number of factors affecting the quality of life which include: socioeconomic general conditions and the average level of living of the society in the given region, the level and availabilities of medical services, satisfaction with work, with family life, the interaction with other people and epidemiological and demographic factors such as: age, gender, education and profession. Chronic diseases including Parkinson’s disease are illnesses, which in a special way are modifying patient’s acting and quality of life.

The quality of life is affected by objective and subjective factors, which are evaluated by special scales. Subjective factors include: level of fitness, happy family life, financial situation, social support and contact with other people. Course of a disease, social status and the presence of social contacts can be considered as objective factors. The scales can be divided into universal (general) and specific for the disease (disease-oriented) [21;24].

QUALITY OF LIFE INSTRUMENTS - GENERIC QUESTIONNAIRES

Non-specific scales capture several dimensions of quality of life and are used to assess and compare the quality of life of different groups of subjects and large populations. They allow measuring the impact of severity of the disease on quality of life [22]. The most commonly used generic scales include Short Form Health Survey - SF 36, EuroQoL- EQ-5D, Sickness Impact Profile (SIP), Life Satisfaction Questionnaire LSQ, Quality of Well-Being Scale - QWBS [21].

The scale SF-36 permits the assessment of global functioning in eight areas during the four weeks preceding the evaluation. This survey takes about 9 minutes to complete. Its disadvantage is relatively low sensitivity to changes in QoL.

The EQ-5D - contains questions that allow assessment of five areas of health: mobility, self-care, pain, social activities and psychological state. It takes about 3 minutes to complete. This scale also has low sensitivity to QoL changes.

SIP questionnaire makes possible the assessment of 12 areas of activity at the time of study. Also it is more sensitive to the changes than SF-36 and EQ-5D. The time required to complete the survey is about 30 minutes, and it consists of 136 items.
LSQ allows the assessment of overall satisfaction and satisfaction within 8 spheres of life.

QWB is used to assess mobility, social and physical activity and 27 other areas of life. The testing time can be up to 15 minutes and the advantage of this scale is the possibility to complete the survey by interview conducted by a competent person [21].

**Quality of life instruments - questionnaires specific for PD**

Specific scales used to assess the quality of life of people with a specific diagnosis focus on the typical symptoms of the disease [22]. Examples of such scales may be: Parkinson’s Disease Questionnaire (PDQ-39) and Parkinson’s Disease Quality of Life Questionnaire (PDQL). However, the most frequently used scales are: Parkinson’s Disease Quality of Life scale (PDQUALIF) and Parkinson’s Impact Scale (PIMS) [21].

PDQ-39 was introduced in 1995 by Peto et al. from Oxford University, who found positive correlation between the appearance of motor symptoms, such as tremor and stiffness and deterioration of quality of life [11;21]. This questionnaire consists of 39 items divided into 8 subscales: mobility (ten items), activities of daily living (six items), emotional wellbeing (six items), stigma (four items), social support (three items), cognitions (four items), communication (three items) and bodily discomfort (three items). Higher scores achieved by patients correlate with lower quality of life [19]. This questionnaire has higher sensitivity than SF-36 in terms of parameters such as mobility, activities of daily living, emotional state and stigma. However SF-36 is more accurate in the assessment of physical condition and pain [21].

PDQL was created by Boer et al. in 1996. It evaluates 37 parameters in four areas which include: parkinsonian symptoms (14 items), systemic symptoms (7 items), emotional function (9 items) and social function (7 items). Patients can circumscribe one of five answers depending on the frequency of occurrence of the factor: 1- permanently, 2- most of the time, 3- sometimes, 4- a little, 5- never [21;6].

Another scale created in 1996 by Calne et al. is PIMS. This questionnaire allows the patient to assess the impact of the disease on ten areas of their life: positive and negative self-esteem, family relationship, the relationship with the environment, work, being away from home, entertainment, security, financial security and sex. Similarly to the PDQ-39 obtaining higher score is associated with lower level of Health Related Quality of Life (HRQoL).

The last scale which was created in 2003 by Welsh et al. is PDQUALIF. It estimates 33 items in eight groups of issues including function and role in society, self-image, sexuality, outlook, physical activity, autonomy, urinary function and general assessment of quality of life. Respondents are able to choose one of five possible answers [21].
MATERIAL AND METHODS

The aim of our study was to describe on the basis of the articles found in PubMed database and other sources, the influence of clinical determinants resulting from the course of disease and demographic factors on the health-related quality of life in Parkinson’s disease. Additionally, we conducted our own retrospective study based on the medical documentation of patients who in years 2009-2012 were hospitalized because of Parkinson's disease in the Department of Neurology of the Independent Public Clinical Hospital No. 4, Medical University of Lublin. The study group consisted of 40 persons - 21 women and 19 men. Mean age of the population was 63.3 years (women - 64.4, men - 62.1), mean duration of the disease was 8.11 years. We investigated the presence and prevalence of motor symptoms such as rigidity, tremor, bradykinesia and psychiatric symptoms which include lowered mood, disturbances with perception of the disease, memory disorders and disorientation. Taking into account the type and severity of the symptoms and duration of the disease, patients were classified according to the Hoehn and Yahr scale, getting a grade between 1 and 5. In addition we analyzed a correlation between the daily dose of L-dopa and the degree of disease severity in H-Y scale. The results of the study are presented in tables and graphs.

RESULTS

Cognitive problems and depression

The pathogenesis of cognitive problems in Parkinson's disease is complex and still not completely explained. Changes in the underlying substrate can be considered on the basis of disturbances in neurotransmitter systems or coexisting pathology in the brain of a patient with PD. It is estimated, that cognitive problems occur in 40 - 65% of patients and generally include: executive dysfunction, memory deficits, impaired visuo-spatial functions, slow processing of information and language disorders in the later stages [25]. A preliminary diagnosis of cognitive impairment is based on the use of non-specific tests (the Benton test, Mini Mental State Examination (MMSE), Clock Drawing Test, Wechsler test, Rosenbaum vision screening test) and neuropsychological tests such as: California Verbal Learning Test (CVLT), Controlled Oral Word Association Test (COWAT), Digit Symbol Modality Task (SDMT), Paced Auditory Serial Addition (PASAT), Delis-Kaplan Executive Function System (D-KEFS) [21].

The major neuropsychiatric disorder observed in the clinical picture of PD is depression occurring in up to 60% of patients as a result of expansion of the neurodegenerative process outside the nigrostriatal system. It exerts a significant negative impact on PD itself, as well as increased morbidity and mortality in this group of patients. According to most authors depression is endogenous (or mixed) rather than reactive and the substrate is the damage of dopaminergic, serotonergic and noradrenergic neurons, mainly in the limbic system [9].

In April 2006 a report was published on diagnosis and treatment of depression, psychosis and dementia in the course of PD by a research group of American Acad-
The influence of Parkinson's disease on the quality of life – review of the literature and retrospective study

emy of Neurology (AAN). The authors recommended using BDI (Beck Depression Inventory), HDRS (Hospital Anxiety and Depression Scale), The Hamilton scale and MADRS (Montgomery - Asberg Scale) in screening assessment of depression [9]. It is important, that both the Hamilton’s and Beck’s scales are limited by age ranges, namely the first one is frequently used to study depression in the elderly and the second is more applicable in younger patients. [21]

As we mentioned before, Parkinson's disease has a devastating impact on the mental state of the patient, which is reflected by the occurrence of depression and a significant reduction in quality of life. Statistical analysis by Lorencowicz et al. using IADL (Instrumental Activities of Daily Living Scale) showed, that a significant role in causing the symptoms of depression is the loss of functional efficiency and daily activity. This scale is a tool assessing the reality of functioning in the field of complex activities of daily living (professional duties, keeping finances, keeping prearranged appointments, independent travelling, use of household appliances, telephone, cleaning, cooking, control of medication taking). Moreover on the basis of a PDQ-39 the authors demonstrated, that depression in respondents causes problems with memory (93.33%), limited activity and the circle of interest (90.33%), disrupts social life (78%), reduces economic status (73.33%) and causes a pessimistic attitude to reality (68%) [18].

The study of another research group - Schrag et al. based on PDQ-39 and BDI concluded, that depression and impaired motor skills were the main factors affecting the quality of life of patients with PD. The BDI score accounted for 54% of the variance in a model predicting PDQ-39 scores, while motor disability scores for 15% [23]. Friney and colleagues confirmed that the BDI score was the most important predictor of quality of life, which explained 58% of the variance of PDQ-39 scores, whereas problems with mobility and medication taking constituted for 17% [21].

In our retrospective study we also noted a negative impact of PD on the mental efficiency and cognitive functions. More than 41% of patients reported lowered mood, 39% - memory impairment and 22% - disorientation. We also evaluated the response of patients to the information about the disease. Thirty four percent of respondents reported sadness and anxiety, while depressive mood exhibited less than 5% of patients.

Fatigue

Fatigue is increasingly more common symptom of Parkinson’s disease and has a significant negative impact on the quality of life. In clinical terms it can be defined as subjectively perceived feeling of lack of energy to start and sustain any activity, with no connection with depression or muscle weakness [2]. There are many scales assessing the severity of fatigue. Fatigue Severity Scale - FSS and the Modified Fatigue Impact Scale - MFIS are used most commonly. The first one consists of 9 items, whereas MFIS consists 21 items and it examines the impact of fatigue on
aspects of mental, physical and social life. This scale was created by Fisk as a modification of the FSS [21].

Research conducted by the Norwegians on a population of 232 patients showed that fatigue appeared in 44.2% of patients [10;21]. They claimed that fatigue is overlapping with depressive symptoms, but not always related to them, what could be examined using psychological tests such as Multidimensional Fatigue Inventory (MFI) and Geriatric Depression Scale (GDS). They also found that some patients who did not have depression also complained of occurrence of this disorder. Whereas Hitten et al. observed excessive fatigue in 48% of patients with Parkinson's disease and demonstrated that fatigue syndrome was associated with decreased glucose metabolism and blood flow in the putamen and the supplementary motor area [2,21].

Other studies show that fatigue is not related to motor and non-motor symptoms. Also a dose of L-DOPA used in the treatment of PD did not affects the incidence of fatigue [21].

Sleep disturbances

Research shows that sleep disorders affect 60 to 98% of patients with Parkinson's disease, which significantly reduces the quality of life of patients with increasing degree of these disturbances [21].

Opara and colleagues suggest using PDSS scale (Parkinson's Disease Sleep Scale). It is a simple scale used for the conduction of screening tests for different types of sleep disorders in PD, indicating a possible need for the conduction of specialist examination of the sleep pattern and allowing the introduction of a new treatment.

Sleep disorders in Parkinson's disease occur in the form of insomnia, difficulty falling asleep, akinesia and disorders associated with REM. The most dangerous form of sleep disorders are behavioral disorders associated with REM sleep (RBD), which usually refer to episodes of REM in the morning, particularly in man. During the sleep patient performs rapid movements, because the typical muscle relaxation during REM sleep does not occur, resulting in injury to the patient or the person sleeping with him.

In some patients with Parkinson's disease the symptoms of restless legs syndrome (RLS) and/or periodic limb movements during sleep (PLMS) were described. According to research, prevalence of RLS in patients with Parkinson's disease is twice higher than in the general population. Patients with RLS have difficulty falling asleep, reduced efficiency and continuity of sleep and shortened duration of sleep.

The emergence of nocturnal akinesia is the result of a long interval between evening and morning dose of medications. Patients have problems with the change of body position during sleep, which is the cause of daytime sleepiness. This phenomenon is very dangerous because it impairs the ability to drive, and there is a high risk of traffic accident. Therefore patients are often forced to give up their work.

Also the treatment has large impact on sleep. Selegiline, which is metabolized to amphetamine makes it difficult to fall asleep and may even cause total sleep deprivation. Levodopa increases the latency of REM sleep and reduces REM sleep. Anticholinergic drugs cause insomnia, especially in the elderly [3,29].
Motor disorders

As we already mentioned at the beginning of the article, the early motor disorders include: rigidity, tremor and bradykinesia, and as the disease progresses problems with dressing, bathing, eating, voice production and sexual function appear [12]. Many studies on the effects of Parkinson's disease on motor function disorders have been conducted. Research group of Lorencowicz et al. confirmed that people with Parkinson's disease have an impaired daily functioning - average rating of functionality (IADL) was 12.09 ± 3.29 (8 to 24). In addition, it has been shown that 80% of respondents were not able to use the phone, about 70% of the respondents could not take medications, approximately 55% were not able to do shopping, over 40% of patients had problems with walking long distances, independent meal preparation and execution of some types of household chores, such as cleaning [18].

Research conducted by Królikowska et al. also showed deficits in everyday functioning among patients with Parkinson's disease. 86% of patients had problems with mobility, 44% with personal hygiene, 54% with food intake and 62% with dressing [13].

On the basis of study by Mutch et al. 45% of patients were in class IV and V of disability according to Hoehn-Yahr Scale, while 23% had moderate disability [20].

Retrospective studies on our patients also present a significant impact of the disease on the occurrence of motor disorders. The rigidity was observed in over 80% of patients, tremor in 78% and bradykinesia in 49%. Based on research it is clear that Parkinson's disease has a negative impact on quality of life. It interferes with the efficient performance of the basic activities of daily living [18;26].

Costs and duration of treatment

The costs of treatment of Parkinson's disease also affect the assessment of the quality of life by patients. Research conducted by Żach et al. shows, that the higher the costs of treatment, the worse the patients assessed their quality of life. The duration and intensity of therapy also affects the quality of life of patients with Parkinson's disease. In the above mentioned studies it was observed, that patients whose disease started at a younger age and who were treated with higher doses of levodopa and other antiparkinsonian drugs had worse assessed the quality of their lives [31].

Sexual disturbances

Satisfaction with sexual life is a factor strongly influencing the quality of life in the evaluation by the patients themselves. The issue of sexual dysfunction in patients with Parkinson's disease is rarely discussed despite the fact, that this problem affects many patients (about 80%), both women and men [14].

The reason for omitting the topic of sexual activity in these patients may be the belief that because of illness and the age of the patients, they gave up their sex life. We have to remember about patients, whose first symptoms of the disease appear in middle age when sexual activity plays an important role. The cause of sexual dysfunction may be impairment of the autonomic nervous system (the first place among
the causes in men), motor symptoms (bradykinesia, rigidity, tremor), fatigue, sleep disturbances, depression, interpersonal factors. The main symptoms of these disorders are: weakness, and often suppression sexual desire, anorgasmia, erectile dysfunction in men, vaginal dryness, dyspareunia. Dopaminergic therapy results in increase of sexual needs in a substantial number of men with Parkinson's disease. This happens after the application of both levodopa and dopamine agonists [26]. Depression and reduced physical fitness increase the probability of sexual dysfunction [14].

Sexual problems have a negative influence on the quality of life of the sick person and his/her partner. Activity in patients with Parkinson's disease is better in the morning and shortly after taking a dose of drugs. Partners should adapt their sexual activities to the rhythm of the patient's best activity. Mutual understanding and support can have a significant impact on the couple's marriage and sexual life. Partners must understand the limitations arising from the disease [7].

Speech disturbances, impaired communication

Speech disturbances are among the symptoms of Parkinson's disease, and their causes include: impaired function of laryngeal and facial muscles, reduced lung capacity and bradykinesia.

In speech disturbances vocabulary is not reduced, while the function of organs of speech is impaired. This can lead to disorders of articulation (clarity), volume, intonation and melody, as a result patients have impaired ability to spontaneously express themselves. Their speech is characterized by hoarseness and whispering. Often this is combined with a trembling voice, which is caused by the soft palate trembling and weakness of the respiratory muscles [7].

Levodopa therapy and speech therapy have good effect on reducing the severity of symptoms of speech disorders. The ability to understandably communicate with others can have a positive influence on the healing process, because the patients are able to clearly define their needs, accurately describe them and also accurately describe the symptoms of the disease [16].

Regular physical activity

Parkinson's disease is a chronic and progressive disease in which the symptoms are initially mild, but over the course of the disease they are intensified which greatly reduces the physical activity of patients. Rehabilitation in PD is based on kinesitherapy and learning activities of daily living. The scope of rehabilitation is individually tailored for each patient. Properly selected exercises increase the capacity and efficiency of the cardiovascular system and the respiratory system. They have a positive effect on body posture, increase muscle mass and strength and increase their flexibility. Through the exercise we improve the functioning of the abdominal organs, prevent constipation and retention of urine in the bladder [16].

It has been proven, that exercise has a positive effect on the dopaminergic neurons in the central nervous system. During the exercise the secretion of dopamine by dopaminergic neurons is increased. Production of endorphins is also stimulated by
physical activity. Endorphins are called "hormones of happiness" and have the ability to improve mood and increase the level of satisfaction [1;5;8].

The role of foundations and associations
The aim of associations and foundations is to bring people with Parkinson's disease together. The activities of the organization include reaching out to the sick, providing psychological support, organizing time, allowing contact with other sick people as well as healthy individuals, who through volunteering often offer their help. Research survey conducted by one of these foundations shows, that patients expect from these organizations medical support, information about treatment and rehabilitation possibilities. Being a member of the association or foundation gives the possibility to meet other patients. Patients realize that they are not alone with a disease and disease does not concern only themselves. They appreciate the value of life and realize, that no life is free from worries and concerns. Patients also have a possibility to share their experience about the disease, increase awareness and knowledge, which may contribute to the healing process. It seems, that the affiliation to the foundations is an example of rational behavior of patients as well as an example of readiness to accept change in their lifestyles forced by disease [30].

CONCLUSIONS
Parkinson's disease has a significant impact on health-related quality of life. As shown in the above studies patients in the largest extent complain of motor function disturbances, which restrict their daily functioning. There is also evidence that the prevalence of non-motor symptoms such as depression, fatigue, disorders of sleep and speech, sexual dysfunction and cognitive impairment have a significant impact on the deterioration of the quality of life in patients suffering from Parkinson's disease. It seems that the aging population and the associated higher incidence of chronic diseases are the cause of greater interest in the subject of quality of life.

REFERENCES


The influence of Parkinson's disease on the quality of life – review of the literature and retrospective study


Table 1. Patients characteristics (n=40)

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>19</td>
</tr>
<tr>
<td>Women</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean age (years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>64.4</td>
</tr>
<tr>
<td>Men</td>
<td>62.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration of disease (years)</th>
<th>8.11</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mean age of disease onset (years)</th>
<th>51.46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Mental condition of studied population

<table>
<thead>
<tr>
<th>Mental condition</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>depressive</td>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>increased</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>balanced</td>
<td>10</td>
<td>41</td>
</tr>
<tr>
<td>Perception of disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no reaction</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>anxiety</td>
<td>9</td>
<td>29</td>
</tr>
<tr>
<td>depression</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>sadness</td>
<td>5</td>
<td>47</td>
</tr>
<tr>
<td>Memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>good difficulties</td>
<td>11</td>
<td>59</td>
</tr>
<tr>
<td>poor</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>partial</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>total</td>
<td>11</td>
<td>82</td>
</tr>
</tbody>
</table>

Population n = 16 n = 17

Graph 1. Hoehn and Yahr disability grades in 40 patients
The influence of Parkinson's disease on the quality of life – review of the literature and retrospective study

Graph 2. Number of patients in each degree of the scale

Graph 3. Correlation between mean dose of L-dopa and disease severity in Hoehn-Yahr scale
ABSTRACT

Parkinson’s disease (PD) is the most common degenerative disorder of a central nervous system, which is the result of the loss of dopaminergic neurons in substantia nigra, and in effect it leads to loss of motor function, psychiatric disorders or severe disability. The incidence of this illness in the population over 55 years of age is about 1% and over 75 years of age - 3%. In contrast, the first symptoms of Parkinson’s disease usually appear between 50 and 60 years of age. The aim of this study was to evaluate the influence of Parkinson’s disease on the patients’ quality of life. On the basis of the articles found in PubMed database and other sources we described the influence of clinical determinants, resulting from the course of disease and demographic factors on health-related quality of life in Parkinson’s disease. Additionally we conducted our own retrospective study based on the medical documentation of 40 patients, who were hospitalized in Department of Neurology of the Independent Public Clinical Hospital No. 4 in Lublin in the years 2009-2012. We analyzed the incidence of motor and psychiatric symptoms in the population of patients suffering from the disease, which enabled us to their classification according to the Hoehn-Yahr scale. On the basis of retrospective studies we have shown the presence of motor symptoms such as: rigidity and tremor in 80% and 78% of cases, respectively. In contrast, the least represented symptom appeared to be bradykinesia (49% of patients). Psychiatric symptoms were: lowered mood (present in 41% of patients), memory disturbances (39%) and disorientation (22%). We also found a correlation between the daily dose supplementation of L-dopa and the severity of disease in Hoehn Yahr scale. The analysis showed that with increasing severity of the disease
in H-Y scale average daily demand for L-dopa also grew. We found a negative correlation between advancing symptoms of PD with the decline of quality of life grades reported by patients. Parkinson’s disease has a substantial impact on health related quality of life. This finding was also supported by the literature study based on different populations of patients across the world and refers to different aspects of daily functioning like physical, social, sexual activity and mental efficiency.

STRESZCZENIE

Choroba Parkinsona (PD) jest jedną z najczęściej występujących chorób zwyrodnieniowych ośrodковego układu nerwowego, skutkiem której jest zanik neuronów dopaminergicznych w istocie czarnej, co w efekcie prowadzi do utraty wielu funkcji motorycznych, zaburzeń psychicznych lub ciężkiego kalectwa. Częstość występowania choroby w populacji powyżej 55 roku życia wynosi 1%, a po 75 roku życia 3%. Natomiast pierwsze objawy PD zwykle pojawiają się pomiędzy 50 a 60 rokiem życia. Celem naszej pracy było opisanie wpływu choroby Parkinsona na jakość życia pacjentów. Na podstawie artykułów dostępnych w bazie PubMed oraz innych źródeł opisaliśmy wpływ uwarunkowań klinicznych, wynikających z przebiegu choroby i czynników demograficznych na jakość życia związaną ze stanem zdrowia w przebiegu choroby Parkinsona. Dodatkowo przeprowadziliśmy badania retrospektywne na podstawie historii chorób 40 pacjentów hospitalizowanych w Klinice Neurologii Samodzielnego Publicznego Szpitala Klinicznego nr 4 w Lublinie w latach 2009 - 2012. Przeanalizowaliśmy częstość występowania objawów motorycznych i psychicznych w populacji pacjentów zmagających się z chorobą, co pozwoliło nam na ich klasyfikację według skali Hoehn-Yahra. Na podstawie badań retrospektywnych wykazaliśmy obecność zaburzeń motorycznych takich jak: sztywność i drżenie, odpowiednio u 80% i 78% pacjentów. Natomiast najrzadziej spośród objawów ruchowych pojawiały się bradykinezje (49% pacjentów). Z kolei objawy psychiatryczne, takie jak: obniżenie nastroju wykazano u 41%, zaburzenia pamięci u 39% oraz zaburzenia orientacji u 22% pacjentów. Przedstawiliśmy również korelację między dzienną dawką L-dopy a poziomem ciężkości choroby w skali Hoehn-Yahra. Analiza wykazała, że wraz ze wzrostem stopnia zaawansowania choroby w skali H-Y rosło również średnie dziennie zapotrzebowanie na L-dopę. Wykazałyśmy wyraźnie negatywny związek pomiędzy nasileniem objawów PD a obniżeniem poziomu jakości życia pacjentów. Choroba Parkinsona ma istotny wpływ jakość życia. Został on potwierdzony na podstawie badań zawartych w literaturze, opartych na różnych populacjach pacjentów na całym świecie i odnosi się do wielu aspektów codziennego funkcjonowania, takich jak aktywność fizyczna, społeczna, seksualna oraz sprawność umysłowa.

Artykuł zawiera 35277 znaków ze spacjami + grafika