Results of Quality of Life Indicators in Patients With Osteoarthritis

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ABSTRACT

The article deals with the quality of life in patients with osteoarthritis and to investigate their changes during treatment. The purpose of the work is to determine quality of life indicators in patients with osteoarthritis and study their changes during treatment.

Materials and methods. Our study included 60 patients with pathology of the musculoskeletal system, namely osteoarthritis (OA), the average age was 59.6 ± 3.2 years, among whom there were 39 women (78%) and 21 men (22%).). Our study determined quality of life indicators using the SF-36 questionnaire in patients with osteoarthritis before treatment and after three weeks of standard treatment, which included the use of non-steroidal anti-inflammatory drugs (NSAIDs), chondroprotectors and therapeutic physical training.

KEYWORDS: *quality of life, deforming osteoarthritis, healing fitness, questionnaire SF-36.*

Quality of life (QOL) is an integral indicator of a person's physical, psychological, economic and social functioning, based on his subjective perception. Currently, it is becoming increasingly clear that diseases of the musculoskeletal system significantly worsen the quality of life of patients due to the presence of constant pain and impaired functional activity [1; 9; 13; 14]. The decrease and then loss of not only working capacity, but also the ability to perform ordinary everyday functions poses difficult challenges for the patient himself, his family and society as a whole. Therefore, improving quality of life is considered the main goal in the treatment of patients with chronic diseases, including rheumatic diseases.

The purpose of the work is to determine quality of life indicators in patients with osteoarthritis and study their changes during treatment.

Materials and methods. Our study included 60 patients with pathology of the musculoskeletal system, namely osteoarthritis (OA), the average age was 59.6 ± 3.2 years, among whom there were 39 women (78%) and 21 men (22%).). Our study determined quality of life indicators using the SF-36 questionnaire in patients with osteoarthritis before treatment and after three weeks of standard treatment, which included the use of non-steroidal anti-inflammatory drugs (NSAIDs), chondroprotectors and therapeutic physical training.

Results. As a result of a survey of patients using the SF-36 questionnaire, QoL scores were obtained in points from 0 to 100, according to which, the more restrictions the patients felt in everyday life, the lower the scores demonstrated by this questionnaire. When assessing QOL according to SF-36 among 60 OA patients before treatment, the following distribution of indicators on scales was recorded (Fig.1).
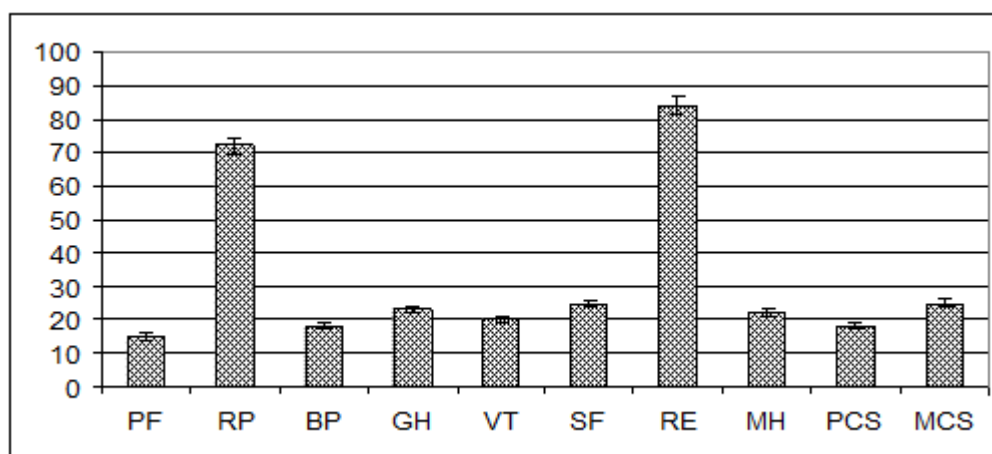
Fig.1. Indicators of quality of life according to the SF-36 scales in patients with OA (M ± m, n = 34; on the abscissa axis are the questionnaire parameters, ordinate points)

As shown in Fig. 1 patients experienced a decrease in quality of life indicators on most scales. Indicators of physical activity (PF) were most reduced in patients - 16.43 ± 2.87 points and severe pain syndrome (BP) was observed - 18.21 ± 3.12 points. This indicates significant limitations in patients with OA when walking, bending, and performing physical activities. Obviously, precisely with these circumstances, as well as with a decrease in vitality (VT) to an indicator of 21.34 ± 1.95 points, general (GH) indicators - 24.41 ± 1.37 points and psychological (MH) health - 22.67 ± 1.84 points is associated with a sharp decrease in social functioning (SF) of patients - 26.14 ± 2.35 points.

At the end of the standard course of non-drug and drug therapy, the patients were subjected to a repeat survey, which showed significant positive dynamics in QoL indicators on all scales of the questionnaire. With the greatest degree of certainty, the patients' indicators characterizing physical health improved. Thus, physical activity (PF) improved by 32.4% (p <0.05), role physical functioning (RP) - by 33.8% (p <0.05), bodily pain (BP) - by 39, 7% (p <0.05), general health (GH) - by 16.8% (p <0.05).

Sredi pokazateley, харakterizuyущіх psixologicheskoe zdorovье, uluch This was observed to a lesser extent and with less reliability. Role emotional functioning (RE) improved by 19.8% (p <0.05), vitality (VT) by 28.4% (p <0.05) and psychological health (PH) by 17.8% (p <0.05). Particularly important is the assessment of such a parameter as the social functioning of patients (SF), which improved by 20.7% (p <0.05). As a result, all of the above changes led to an improvement in overall indicators of physical and psychological health. Thus, generalized physical health (PCS) improved by 16.7% (p <0.05), and generalized psychological health (MCS) - by 12.5% (p <0.05). Noteworthy is the fact that individual and general indicators of quality of life, reflecting the level of physical health, improved to a greater extent and with a higher probability than parameters of psychological well-being, although during the initial testing there was an almost identical decrease in indicators characterizing physical and psychological health .

Analyzing the data from the initial and final testing, we can say that pain and limited mobility of varying degrees, characteristic of osteoarthritis, result in disruption of even normal daily work. Since OA is a chronic disease and leads to long-term deterioration of physical condition, it also causes secondary problems of a psychological and social nature [2; 10; eleven; 12]. Therefore, a significant reduction in pain, improvement in physical activity and role physical functioning while taking non-steroidal anti-inflammatory drugs (the initial survey was conducted before NSAID therapy) led to the obtained result.

Since pain makes the greatest contribution to the deterioration of quality of life in patients, we simultaneously assessed the severity of pain in the joints using a visual analogue scale (VAS). The VAS is a horizontal line 100 mm long, which reflects the spectrum of pain intensity, where 0 corresponds to the concept of "no pain", 100 - "pain is as severe as imaginable." Unlike other scales, VAS markings are not carried out; the patient independently marks a point on this line that corresponds to the level of his pain. The relationship of this point with the millimeter markings of the ruler gives a digital expression of pain intensity [1; 3; 4; 7]. The VAS is used to evaluate such indicators as pain at rest, at night, pain with movement, and "starting" pain.

During the initial survey, the following indicators were determined: pain at rest was 43.4 ± 3.6 mm, pain during movement was 76.1 ± 3.8 mm, "starting" pain was 62.2 ± 4.2 mm, night pain was 49.7 ± 3.6 mm.

When conducting repeated questioning, a significant ($p<0.05$) decrease in pain was observed. According to patients, the maximum effectiveness of treatment was observed 5.6 ± 0.8 days from the start of drug therapy. Thus, pain at rest decreased by 53.4%, pain during movement - by 59.4%, "starting" pain - by 54.8%, night pain - by 63.2%.

Conclusions. Reducing the severity of pain in patients with osteoarthritis is the main goal in the treatment of this group of patients, which ultimately leads to a significant improvement in the quality of life of patients and an increase in the functional capabilities of patients. At the present stage, the methodology for assessing quality of life indicators makes it possible to assess not only the nature of the impact of the disease on the patient's life activity, but can also be used as one of the criteria for assessing the effectiveness of treatment. The generic SF-36 questionnaire provides a wide opportunity to assess both the effectiveness of treatment of many chronic diseases and comorbid pathologies, as well as the effectiveness of the use of individual medications. Significant advantages of this method are the assessment of both physical and psychological factors, breadth of application (use for various diseases), relative ease of deciphering the results and short time for interviewing the patient.

Literature:

1. Golovach I.Yu. Targetniy podxod v lechenii osteoartroza / I.Yu. Golovach // Zdorov'ya Ukraïni. Tematichniy nomer. — 2022. — № 3-4 (23—24). — S. 60—61.

2. Saidxonova A. M. Rolь antioksidantov v kompleksnom lechenii deformiruyushego osteoartroza //I Vserossiyskoy nauchno-prakticheskoy konferentsii s mejdunarodnim uchastiem «Farmakologiya raznыx stran». – 2017. – №. 9. – S. 36.

3. Kazimirko V.K. Pervichniy (vozrastzavisimiy, involyutsionniy) osteoartroz / V.K. Kazimirko, V.N. Kovalenko, V.I. Malьtsev. — K.: Morion, 2016. — 175 s.

4. Kovalenko V.N. Osteoartroz. Prakticheskoe rukovodstvo / V.N. Kovalenko, O.P. Bortkevich. — K.: Morion, 2018. — 448 s.

5. Osteoartroz kak faktor riska kardiovaskulyarnix katastrof / O.I. Mendel, A.V. Naumov, L.I. Alekseeva [i dr.] // Ukraïnskiy revmatologichniy jurnal. — 2010. — № 3 (41). — S. 68—73.

6. Aigner T. Aging theories of primary osteoarthritis: from epidemiology to molecular biology / T. Aigner, J. Rose, J. Matrin, J. Buckwalter // Rejuvenation Res. — 2007. — Vol. 7, № 2. — P. 134—145.

7. Bonnet C.S. Osteoarthritis, angiogenesis and inflammation / C.S. Bonnet, D.A. Walsh // Rheumatology. — 2015. — Vol. 44, № 1. — P. 7—16.

8. Ware J.E. SF-36 Health Survey. Manuel and Interpretation Guide /J.E. Ware, K.K. Snow, V. Kosinski [et al.] // Lincoln, RI: QualityMetric Incorporated. — 2000. — 150 p

9. Saidxonova A. M. Rol antioksidantov v kompleksnom lechenii deformiruyushego osteoartroza //I Vserossiyskoy nauchno-prakticheskoy konferentsii s mejdunarodnыm uchastiem «Farmakologiya raznix stran». – 2017. – №. 9. – S. 36.

10. Saidxonova A. M. Povishenie kachestva jizni s deformiruyущіm osteoartrozom putem optimizatsii profilak-ticheskix mer v usloviyax pervichnogo zvena zdravooxraneniya //Pechataetsya po resheniyu redaktsionno-izdatelskogo soveta Vostochno-Sibirskogo gosudarstvennogo universiteta texnologiy i upravleniya. – 2016. – S. 267.

11. Fomichev V. A. i dr. Artrodezirovanie golenostopnogo sustava kak optimalnayaxirurgicheskaya optsiya pri lechenii patsientov s deformiruyущіm artrozom golenostopnogo sustava terminalnoy stadii (obzor literaturi) //Kafedra travmatologii i ortopedii. – 2019. – №. 4. – S. 18-26.

12. Montejo M. S., Morán G. G., Cilveti J. A. Enfermedad de Legg-Calvé-Perthes //Revista española de cirugía ortopédica y traumatología. – 2011. – T. 55. – №. 4. – S. 312-322.

13. Johnson V. L., Hunter D. J. The epidemiology of osteoarthritis //Best practice & research Clinical rheumatology. – 2014. – T. 28. – №. 1. – S. 5-15.

14. Axmedov X. S., Abduraximova L. A., Saidxanova A. M. Zavisimost vnesustavnix proyavleniy revmatoidnogo artrita ot ekologicheskix faktorov //APRIORI. Seriya: Estestvennie i texnicheskie nauki. – 2017. – №. 2. – S. 4-4.

15. Kh M. M., Saidkhonova A. M. Frequency of atopic diseases in unfavorable ecological regions of Uzbekistan //Problems of biology and medicine. – 2020. – T. 2. – №. 118. – S. 84-87.