

UDK: 616.711-018.3-002-08:615.81

## CORRECTIVE EFFECT OF THERAPEUTIC EXERCISES ON MANIFESTATIONS OF NEURALGIC SYMPTOMS IN SPINAL OSTEOCHONDROSIS

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**Key words:** osteochondrosis, dorsalgia, therapeutic exercises, tension symptoms, visual analog scale.

**Introduction.** The annual increase in the number of diseases and lesions of the spine is an urgent problem in neurology. Osteochondrosis of the spine is the most common cause of the spine pathology, which ranks the first in the group of diseases of the musculoskeletal system. Back pain is the most common manifestation of various pathological conditions, and it is observed in 80% of the able-bodied population aged of 20 to 60 years. At this nosology, there are degenerative-dystrophic changes in the intervertebral discs, which lead to decrease in their elastic qualities and negatively affect the functional state of the spine. Clinically, this condition is manifested by a reduction in endurance of the spine to static stresses, the appearance of pain, the decrease in the amplitude of movements. As a result, in 27% of cases, in the case of osteochondrosis of the spine there is a temporary disability, 3% of disability.

Such figures indicate the need to improve the integrated approach, which includes not only medical treatment, but also physical therapy, and social rehabilitation of patients suffering from the specified pathology. Therefore, the purpose of our study is to assess the effectiveness of therapeutic exercises, as a component of physical therapy, in the case of osteochondrosis of the epiphobic spine (EPHS).

**Methods of research:** content analysis of medical outpatient card, review, visual analogue scale (VAS), clinical tests to determine the state of EPHS, namely symptoms of tension (symptoms of Lasegue, Neri and Dezerina), methods of mathematical statistics.

The study was conducted on the basis of the Lutsk Center of Primary Health Care. 44 patients have participated in it, divided into control (KG) and experimental group (EG). Each group consisted of 22 patients. All patients received medical treatment of osteochondrosis EPHS according to the recommendations of the Ministry of Health of Ukraine, as well as the clinical protocol for the provision of medical care to patients with dorsalgias. The patients, included in the EG, were additionally engaged in therapeutic exercises with the instructor of exercise therapy within the facility and / or independently at home. There were no such patients with KGs. The complex of therapeutic exercises included passive, ideomotor, respiratory, static (isometric) and dynamic (isotonic) exercises. Exercises in each of these groups may differ from patients in the EG because they are assigned individually, depending on the intensity of the pain, physical condition of the patient, muscular strength, etc. But the general rules of dosing and performing these exercises have been preserved. The effectiveness of the use of therapeutic exercises in the physical therapy of osteochondrosis EPHS was evaluated on the first and the tenth day of ambulatory treatment.

**Research results.** In the content analysis of outpatient medical cards, it was found that all patients of our choice had risk factors that increased the possibility of developing vertebrogenic pathology. These include: "sedentary" lifestyle, trauma and spinal injury in history, severe physical labor, age and hormonal alterations in the human body, hereditary effects, and the like.

The general characteristics of patients (middle age, gender, main diagnosis) included in the KG and EG indicated the homogeneity and representativeness of these groups. That is why it was possible to compare the results obtained after treatment and physical therapy in KG and EG and to conclude on the effectiveness and expediency of using therapeutic exercises as a part of a rehab program in osteochondrosis EPHS.

The following results were obtained in KG: on the first Day, the median score for VAS was  $6.05 \pm 0.373$  ( $p \leq 0.05$ ), while the Laseg symptom was a symptom, the pain arose with an average elevation of  $48.55^\circ \pm 2.77^\circ$  ( $p \leq 0.05$ ), a positive symptom of Neri was noted in 86.3% of patients. After 10 days of therapy, the VAS score was  $1.91 \pm 0.41$  ( $p \leq 0.05$ ), the pain appeared when the limb was raised (Lasegue symptom) at  $57.95^\circ \pm 2.42^\circ$  ( $p \leq 0.05$ ), positive The symptom of Neri emerged in 36.4% of patients.

The purpose of the appointment of therapeutic exercises in EG was to improve the circulation of skeletal

muscles and the spine, prevent muscular hypotrophy, increase muscle strength and reduce the burden on the spine.

EG indicators were the following: on the 1-st day of treatment VAS equaled  $5.91 \pm 0.384$  ( $p \leq 0.05$ ); when checking the symptom of Lasegue, the pain appeared when the limb was raised to  $49.14^\circ \pm 3.07^\circ$  ( $p \leq 0.05$ ), in 81.8% of patients, the Neri symptom was positive. On the 10th day of treatment, the following data were recorded: VAS =  $1.27 \pm 0.32$  ( $p \leq 0.05$ ); during the Lasegue symptom, the pain was noted when the limb was raised to  $63.86^\circ \pm 3.41^\circ$  ( $p \leq 0.05$ ); the positive symptom of Neri was recorded in 27.4% of patients.

Conclusions. It has been established that the combined use of medical treatment and therapeutic exercises is more effective in reducing the intensity of pain and manifestations of pathological neurological symptoms in osteochondrosis of EPHS than the use of medication alone.

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UDC: 615.825:616.825

#### VEGETATIVE DISTURBANCES IN PATIENTS WITH PARKINSON'S DISEASE

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**Keywords:** Parkinson's disease, vegetative disturbances, quality of life.

Background. Parkinson's disease is age-dependent neurodegenerative disorder that includes motor symptoms (slowness of moving, rigidity, shaking and postural instability) and non-motor symptoms. Among non-motor symptoms are vegetative symptoms the most frequent occurred and have hard influence over life in patients with Parkinson's disease.

Aim: to investigate nature and frequency of vegetative disturbances and their influence on quality of life in patients with Parkinson's disease during different stages of disorder and in the dynamic of treatment.

Materials and Methods. It was examined 24 patients with Parkinson's disease who were treated in Department of Nervous Diseases, Chernivtsi Regional Psychiatric Hospital. The symptoms intensity was evaluated by clinimetric assessment of UPDRS. The vegetative status was evaluated by inventory of vegetative functions. The quality of living was evaluated by PDQ-39. Fisher's criterion was used for statistical analysis.

Results. The middle patients' age was  $58,3 \pm 13,5$ , the average duration of disorder was  $5,6 \pm 3,1$  years. 14 patients had bradykinetic-shaken-rigid form, 4 patients had rigid-bradykinetic form and 2 patients had shaken form. The middle severity of illness amounted to  $22,5 \pm 6,5$  points by Part III UPDRS, to  $4,2 \pm 0,5$  points by Part I UPDRS, to  $2,5 \pm 0,5$  points by Hoehn&Yahr scale. 75% of patients with Parkinson's disease had the vegetative disturbances, among them 44,4% patients had hyperhidrosis, 27,7% - hypersalivation, 33,3% - urination disturbances, 55,6% - constipation, 16,7% - dysphagia, 22,2% - orthostatic hypotension, 38,9% - sexual dysfunction. Constipation and orthostatic hypotension occurred obviously by those patients who had later onset of Parkinson's disease and by those who had rigid-bradykinetic form ( $p < 0,05$ ). It was discovered that the vegetative disturbances had hard influence on some aspects of living, such as daily life activity, emotional wheightness, cognitive functions, communication and social support. All the types of vegetative dysfunction had a bad influence on quality of living. The most significant interconnection was founded between digestive system dysfunction, thermoregulation and quality of life.

Conclusion. The high frequency of vegetative disturbances was founded by patients with Parkinson's disease. Those significates correlated with stage of disorder and low-effective treatment. The vegetative disturbances have great influence on the quality of life in patients with Parkinson's disease, deteriorating it, and need active pharmacological and non-pharmacological correction.