ABSTRACT

Zlobin O. O. Psychopathological features of vascular dementia with different localization of pathological focuses. – Qualification scholarly paper: a manuscript.

Thesis submitted for obtaining the Doctor of Philosophy degree in Health Care, speciality 222 – Medicine. – V. N. Karazin Kharkiv National University, Ministry of Education and Science of Ukraine, Kharkiv, 2021.

*The goal of the work:*to develop a model of psychotherapeutic support for people with vascular dementia**(**VD) with different localization of pathological focuses(LOPF) on the basis of targeted symptomocomplex approach based on the definition of persistent complexes of psychopathological symptoms in people with VDwith different LOPF.

The scientific novelty of the obtained results is that the peculiarities of psychopathological symptoms in patients with VD with different LOPF were revealed, which allowed to expand the understanding of the semiotics of organic disorders with a specific localization; correlations of psychopathology in persons with VD with different LOPF were determined, which for the first time allowed to detect the presence of persistent symptomocomplexes in persons with established LOPF; the features of cognitive domains in patients with VD with different LOPF were determined, which in the future allow the creation of personalized rehabilitation strategies aimed at restoring impaired function in patients with VD with different LOPF.

The practical significance lies in the fact that the peculiarities of the cognitive functions of patients with VD with different LOPF were studied, which allows to predict the level of cognitive decline in persons with lesions of the appropriate part of the brain; identification of permanent complexes of neuropsychiatric symptoms in people with VD with different LOPF allows the creation of targeted symptom-oriented approach to provide more personalized psychotherapeutic support for people with VD with different LOPF; a model of psychotherapeutic support for people with VD with different LOPF has been developed, which allows to increase the effectiveness of treatment of people with VD with different LOPF, and thus improve the quality of life of such patients.

The study was conducted on the basis of the Kharkiv Clinical Hospital on railway transport №1 Branch "Health Care Center" JSC "Ukrzaliznytsia", on 157 people diagnosed with VD. All patients in the study met the inclusion criteria and gave conscious informed consent. The clinical diagnosis of VDwas established according to the unified criteria of ICD-10.

After assessing the localization of vascular lesions by CT and/or MRI in the examined contingents, 5 groups were formed. Group 1 (G1) included 22 people with localization of the pathological process mainly in the frontal lobe. Group 2 (G2) consisted of 18 patients with predominant temporal lobe lesions, group 3 (G3) – of 17 patients with predominant parietal lesions, and group 4 (G4) – of 15 patients with predominant occipital lobe lesions. In all patients with G1-G4 VD developed as a result of stroke(s). The group 5 (G5) included 68 people with total brain lesions due to multiple polyfocal strokes (2 or more brainlobes were damaged), or dyscirculatory encephalopathy.

Assessment of cognitive functions was performed using the methods of Mini-Mental State Examination (MMSE) and Montreal – Cognitive Assessment (MoCA), with the definition of the domain features of cognitive impairment. Assessment of psychopathological disorders was performed using the clinical-psychopathological method and verified using the Neuropsychiatric Inventory (NPI).

The study consisted of two stages. At the first stage – diagnostic – 5 mgroups of people with VDwith differentLOPFwere involved.During this stage, the features of cognitive functioning domains in patients with VD with different LOPF were identified, features of psychopathological symptoms and correlations and stable complexes of psychopathology in people with VD with different LOPF were identified.

In the second stage of the study – corrective – patients were divided into subgroups on the basis of therapy. The main group (MG) included persons who received psychocorrectional care according to the developed principles in addition to standard protocol interventions, while persons from the control group (CG) received only treatment provided by the protocol for the management of patients with dementia. The purpose of this stage was to develop a model of

psychotherapeutic support for people with VD with different LOPF on the basis of targeted symptomocomplex approach based on the definition of persistent complexes of psychopathological symptoms in people with VD in different LOPF. Based on the results of this stage, approaches to the correction of psychopathology in people with VD with different LOPF were developed.

Peculiarities of cognitive functions of patients with VD with different LOPF have been studied. In patients from G1, the most affected cognitive domain is abstraction; in addition, a significant cognitive decline is observed in such domains as "delayed recollection", "attention (numbers)" and "speech (repetition)". It is noteworthy that despite the almost complete absence of pronounced cognitive deficit in some domains (statistically significant decrease only for the domain "abstraction"), the overall score on the MMSE and MoCA scales is low and corresponds to mild dementia. For patients from G2 particles, the greatest decline in cognitive functioning occurred in domains such as "delayed recollection", "fluency" and "counting". There is also a decrease in the domains "language (repetition)" and "attention (numbers)".

In patients from G3, the most affected cognitive domains are language fluency and speech (repetition); in addition, a significant cognitive decline is observed in such a domain as "delayed recollection".

For patients from G4, the most significant decline in cognitive functioning occurred in such domains as "visual-constructive skills" and "naming objects", which is a direct consequence of the defeat of visual centers. No other significant violations were found among the G4 representatives, and the overall average score on the MMSE and MoCA scales was the highest among all groups.

Patients from G5 generally had the strongest cognitive decline, compared with patients with localized pathology, which corresponded to moderate dementia. Most cognitive domains (visual-constructive skills, delayed recollection, abstraction, orientation, fluency, language (repetition), arithmetic, and attention) showed a statistically significant decrease compared to other groups. The only cognitive domain that most G5 members found to be almost intact was naming objects.

Peculiarities of psychopathological symptoms in patients with VD with different LOPF were revealed.

In patients from G1, there were no manifestations of apathy, despite its significant intensity in other groups, as well as the highest severity and prevalence of euphoria and both the lowest prevalence and the lowest severity of anxiety, as well as the highest frequency of hallucinatory phenomena. The highest prevalence and severity of apathy was observed in patients from G2. In patients from G3, along with a low prevalence of anxiety, there is a significant intensity of it, although such dissociation was not typical for other groups. Patients from G4 had the lowest prevalence and intensity of sleep disorders, as well as the highest severity of depressive feelings with its moderate prevalence. Patients from G5 had the lowest prevalence and severity of delusional ideas, irritability and agitation, and generally low prevalence and severity of psychopathological symptoms compared to other groups.

The correlations of psychopathology in individuals with VD with different LOPF were determined, on the basis of which stable complexes of neuropsychiatric symptoms, typical for patients with VD with different LOPF were identified. The following stable associations "localization – cluster" were identified:

– frontal lobe – subpsychotic cluster: delirium – hallucinations – euphoria – agitation – depression (depressive symptoms in the structure of this cluster may have be of a psychotic origin and appear simultaneously with the rest of the symptoms, or be a postpsychotic reaction to mental deterioration);

– temporal lobe – asthenoanxiosis cluster: anxiety – irritability – agitation – sleep disturbance – apathy (this cluster of neuropsychiatric symptoms occurs, most likely, as a result of rapid depletion of the nervous system due to pathology of its organic substrate while maintaining opportunities for rapid but short-term functional recovery);

– parietal lobe – excitatory-depressive cluster: depression – agitation – irritability – sleep disturbance (this cluster of psychopathology, obviously, occurs with prolonged excitation and overexertion of mental processes against the background of depressive affect);

– occipital lobe – affectocentric cluster: anxiety – depression – agitation – irritability (this cluster of psychopathology includes a wide range of deviations of the emotional sphere, which together form an intense pathoaffective saturation of the clinical picture in patients of this category);

– total defeat – asthenopathoidideatoric cluster: apathy – irritability – agitation – anxiety – delirium (this cluster of psychopathology somewhat resembles an asthenoanxiosis cluster, but in this case psychasthenisation is more total, and the typical manifestations of asthenia are come together with delusional inclusions).

A model of psychotherapeutic support for people with VD with different LOPF has been developed.

The main vector of minimizing and eliminating anxiety in patients with VD is aimed at shifting attention from stressors to sanogenic, emotionally neutral stimuli.

The main vector of minimizing and eliminating depression in patients with VD is aimed at shifting the regime of emotional experiences from the negative spectrum to positive or at least neutral.

The main vector of minimization and elimination of apathy in patients with VD, aimed at activating mental processes and restoring the minimum acceptable level of emotional response.

The main vector of minimization and elimination of emotional incontinence in patients with VD, aimed at restoring the ability to control the external manifestations of internal feelings.

The main vector of minimizing and eliminating of irritability in patients with VD is aimed at increasing the threshold of negative emotional response to environmental stimuli.

Key words: vascular dementia, psychopathology, affective symptoms, neuropsychiatric symptoms, geriatric psychiatry.