

Impact Factor: 5.682

ISSN: 2181-0982
DOI: 10.26739/2181-0982
tadqiqot.uz/neurology

JNNR

JOURNAL OF NEUROLOGY AND
NEUROSURGERY RESEARCH



VOLUME 1, ISSUE 4
2020

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НЕЙРОХИРУРГИЧЕСКИХ
ИССЛЕДОВАНИЙ**

ТОМ 1, НОМЕР 4

**JOURNAL OF NEUROLOGY
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ЖУРНАЛ НЕВРОЛОГИИ И НЕЙРОХИРУРГИЧЕСКИХ ИССЛЕДОВАНИЙ

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INNOVATIVE FORBRAIN THERAPY FOR COGNITIVE DISORDERS IN PATIENTS WITH CHRONIC CEREBRAL ISCHEMIA

 <http://dx.doi.org/10.26739/2181-0982-2020-4-12>

ANNOTATION

Chronic cerebral ischemia (CCI) is currently becoming the main socio-medical problem not only in clinical neurology, but also in society. Rehabilitation of this pathology and innovative methods for optimizing cognitive impairments are the main issue in the development of therapy in patients with chronic cerebral ischemia. The study included 30 patients with chronic cerebral ischemia who received basic therapy and sessions of the innovative method of correction of cognitive disorders - Forbrain. The comparison group consisted of 30 patients with chronic cerebral ischemia who received only basic therapy. The state of the cognitive sphere was studied using a short mental assessment test - Mini Mental State Examination (MMSE). To assess the severity of psycho-emotional disorders, the Beck Anxiety Inventory (BAI) was used. Based on the results of a comparative study of the effectiveness of conducting sessions, Forbrain as a corrective therapy reduced the severity of cognitive impairments.

Key words: Forbrain, chronic cerebral ischemia, cognitive disorders

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ИННОВАЦИОННЫЙ МЕТОД ТЕРАПИИ ФОРБРЕЙН ПРИ КОГНИТИВНЫХ НАРУШЕНИЯХ У ПАЦИЕНТОВ С ХРОНИЧЕСКОЙ ИШЕМИЕЙ МОЗГА

АННОТАЦИЯ

Хроническая ишемия мозга (ХИМ) в настоящее время становится основной социально-медицинской проблемой не только клинической неврологии, но и общества. Реабилитация данной патологии и инновационные методы оптимизации когнитивных нарушений являются главным вопросом разработки терапии у больных с ХИМ. В исследование были включены 30 пациентов с ХИМ, получавших базовую терапию и сеансы инновационного метода коррекции когнитивных расстройств Форбрейн. Группу сравнения составили 30 пациентов с ХИМ, получавших только базовую терапию. Состояние когнитивной сферы изучалось с помощью краткого теста оценки психической сферы – Mini Mental State Examination (MMSE). Для оценки выраженности психоэмоциональных нарушений применялись шкала тревоги Бека (ШТБ). На основании результатов сравнительного изучения эффективности проведения сеансов Форбрейн в качестве корригирующей терапии уменьшило выраженность когнитивных нарушений.

Ключевые слова: Форбрейн, хроническая ишемия мозга, когнитивные расстройства

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СУРУНКАЛИ БОШ МИЯ ИШЕМИЯСИ БИЛАН ОҒРИГАН БЕМОРЛАРДА КОГНИТИВ БУЗИЛИШЛАРНИ ИННОВАЦИОН ФОРБРЕЙН МЕТОДИ БИЛАН ДАВОЛАШ

АННОТАЦИЯ

Сурункали бош мија ишемияси ҳозирги кунда нафақат клиник неврологиянинг, балки жамиятнинг ҳам ижтимоий-тиббий муаммосига айланган. Ушбу касалликнинг реабилитацияси ва когнитив бузилишларни оптималлаштиришнинг инновацион усуллари сурункали бош мија ишемияси билан оғриган беморларни даволашнинг асосий муаммосидир. Тадқиқотда когнитив бузилишларни корекциялашнинг инновацион усули ҳисобланган Форбрейн сеанслари билан бир вақтда асосий даволаш курсини олган, сурункали бош мија ишемияси билан оғриган 30 та бемор катнашди. Назорат гуруҳи эса фақатгина асосий даволаш муолажаларини олган, сурункали бош мија ишемияси билан оғриган 30та бемордан ташкил топди. Беморларнинг когнитив салоҳияти психик сферани баҳолашнинг қиска тести - Mini Mental State Examination (MMSE) ёрдамида ўрганилди. Рухий-эмоционал бузилишларни баҳолаш учун Beck Anxiety Inventory (BAI) қўлланилди. Форбрейн сеанслари ўтказишнинг самарадорлигини қиссий баҳолаш натижаларига кўра Форбрейн когнитив бузилишлар яққоллик даражасини камайтирди.

Калит сўзлар: Форбрейн, сурункали бош мия ишемияси, когнитив бузилишлар

Chronic insufficiency of cerebral circulation (synonyms: discirculatory encephalopathy, chronic cerebral ischemia, chronic cerebrovascular disease, etc.) is one of the most common pathological conditions in adult neurological practice [4,5,6,7]. In recent years, there has been a significant revision of views on the pathogenesis of the formation of chronic cerebrovascular disorders. Previously, the main attention was paid to the long-term diffuse hypoperfusion of the brain due to local stenosis of large arteries and other mechanical obstacles to blood flow [6]. It has now been established that the main reason for the development of chronic vascular non-stroke lesion of hypoperfusion of the brain is microangiopathy, and not only chronic ischemia of hypoperfusion of the brain, but also repeated acute disorders of cerebral circulation without clinical signs of stroke - the so-called silent infarcts and / or hemorrhages [1,2]. The manifestations of chronic cerebral ischemia depend on the severity and / or extent of the process and include the presence of asthenic, cognitive, neuropsychiatric and focal neurological disorders. The earliest and most common clinical symptom of the disease is impaired cognitive functions [1,2,7]. Already at the earliest stages of chronic cerebral ischemia, 85–90% of patients have cognitive impairments of varying severity. Cognitive deficit, in this case “vascular cognitive disorders”, is a symptom of the disease, which develops one of the first, and is almost always combined with emotional disorders [3,4].

The aim of the study was to assess the dynamics of cognitive functions on the basis of clinical and neurological examination of patients with chronic cerebral ischemia stages 1-2 in the dynamics of therapy with the innovative Forbrain method.

Materials and methods of research: The study included 60 patients with chronic cerebral ischemia stages 1-2. The inclusion criteria for the study were the patients' age from 55 to 75 years, the established diagnosis of chronic cerebral ischemia stage 1-2, corresponding to the ICD-10 criteria; stable course of the disease for at least 12 months before screening. According to the distribution by sex, among the 60 surveyed, there was a predominance of men over women (35 (58%) versus 25 (42%)). Clinical symptoms in 19 (32%) patients corresponded to stage 1 chronic cerebral ischemia, in 41 (68%) patients - stage 2 CCI with mild to moderate cognitive impairment (DSM5 classification). The main group consisted of 30 patients with chronic cerebral ischemia who received basic therapy and sessions of the innovative method of correction of cognitive disorders Forbrain. The comparison group consisted of 30 patients with chronic cerebral ischemia who received only basic therapy. Forbrain is an easy-to-use device that is equipped with a bone guide and a series of dynamic filters to provide feedback in the form of your own voice in a way that would improve its (voices) perception and serve to optimize all components of the audio-vocal chain. Forbrain is considered a product that can improve speech and fluency, memory, attention, coordination and many other sensory functions, resulting in cognitive and emotional correction. The voice of a person using a headset is simultaneously (synchronously) picked up by a microphone, processed in a dynamic filter and, through bone conduction, passes into the temporal bone, sound information goes directly to the inner ear due to vibrations passing through the temporal bones. The dynamic filter, which the Forbrain headset is equipped with, allows you to adapt sound signals depending on the frequency, volume, intonation shades and intensity of the voice. Forbrain is multifunctional and is used to improve the processes of information perception, improve memory, concentration of attention; improving coordination of movements, a sense of rhythm.

The neurological status of patients was assessed at the moment of inclusion in the study (1st visit), again after receiving a course of

basic therapy and 2 sessions. The state of the cognitive sphere was studied using a short test for assessing the mental sphere - Mini Mental State Examination (MMSE), which allows quantifying the overall cognitive deficits.

A characteristic feature of vascular cognitive impairment is a frequent combination of cognitive and emotional-behavioral impairments [2,3,4]. To study the mental state, mainly the emotional sphere, in addition to the clinical assessment (in accordance with the ICD-10 criteria), psychodiagnostic techniques and clinical scales were used. To assess the severity of psychoemotional disorders, the Beck Anxiety Inventory (BAI) was used.

Results of research: All patients included in the study received the full course of basic therapy. At the time of inclusion (1st visit) in the study, psycho-emotional disorders prevailed among patients' complaints, signs of asthenia in the form of weakness and decreased performance in 97%, rapid fatigue in 93%, patients complained of headache in 92%, dizziness in 68%, disturbed night sleep in 80%, excessive irritability and nervousness in behavior in 67%, withdrawal in 20% of the examined patients with chronic cerebral ischemia.

Analysis of focal neurological symptoms at the 1st visit showed: central paresis of the VII pair of cranial nerves was detected in 54 (90%), central paresis of the XII pair of cranial nerves occurred in 30 (50%), respectively. Reflexes of oral automatism were found, respectively, in 12 (20%), anisoreflexia was diagnosed in 37 (62%) patients, unsteadiness in the Romberg position in 34 (57%), and intention during the finger test in 19 (32%) patients with chronic cerebral ischemia. Forbrain sessions were carried out at 2nd visit after the end of basic chronic cerebral ischemia therapy, were carried out for 10 days, 3rd visit was carried out 3 weeks after the repeated course of Forbrain sessions in patients with chronic cerebral ischemia of the main group.

In the course of observation, in patients of the main group who received Forbrain sessions, the total MMSE score from 24.7 ± 0.02 at visit 1 improved at visit 3 and amounted to 27.8 ± 0.34 points, while in the comparison group there was a slight improvement - 24.6 ± 0.06 and 25.8 ± 0.04 points at the 1st and 3rd visit, respectively, which confirms the positive effect of the Forbrain method on the cognitive sphere of patients with chronic cerebral ischemia.

At the time of inclusion in the study, all patients had disorders in the emotional sphere. The study of the psycho-emotional state using clinical scales of depression showed that depressive syndrome is characteristic in the group of patients with chronic cerebral ischemia: the mean score of anxiety disorders according to the Beck Anxiety Inventory in the group of patients with chronic cerebral ischemia was 9.1 ± 2.3 , which corresponds to Beck's insignificant anxiety. When analyzing the data on the Beck Anxiety Inventory after the Forbrain sessions, an effect on the severity of anxiety and a noticeable improvement in indicators in the main group was revealed - 7.1 ± 1.3 points at the 3rd visit, while in the comparison group receiving only basic therapy, anxiety decreased to 8.2 ± 1.1 points. This confirms the positive effect of Forbrain sessions in patients with chronic cerebral ischemia on the state of the psycho emotional sphere.

Conclusion: Thus, based on the results of a comparative study of the effectiveness of Forbrain sessions as a corrective therapy, it reduced the severity of not only cognitive impairments, but also improved the psycho-emotional sphere of patients with chronic cerebral ischemia.

Literature:

1. Захаров В.В. с соавт. Хроническая недостаточность мозгового кровообращения: описание клинического случая// Терапевтический архив, №4, 2016, с.93-98
2. Маджидова Ё.Н., Азимова Н.М., Нарзиева Г.Н., Бахрамов М.С., Таджиев Т.Р. Эффективность терапии когнитивных нарушений и депрессивных расстройств при хронической ишемии мозга.// Неврология №1 2020

3. Румянцева С.А.,и соавт.Проблемы и перспективы коррекции промежуточного метаболизма у больных с сосудистой коморбидностью//журнал Нейроnews№1-2 2014.
4. Чуканова Е.И., Чуканова А.С. Эффективность и безопасность препарата Мексидол ФОРТЕ 250 в рамках последовательной терапии у пациентов с хронической ишемией мозга © /журн Неврологии и психиатрии им Корсакова 2019, vol. 119, no 9
5. Яхно Н.Н. Когнитивные расстройства в неврологической клинике. //Неврологический журнал 2006 ,11(приложение 1); с. 4-12