

INFLUENCE OF IODINE DEFECTS ON THE FEATURE OF CLINICS OF NEUROLOGICAL SIGNS IN PATIENTS WITH DISCIRCULATORY ENCEPHALOPATHY

Djurabekova Aziza Taxirovna

Doctor of Medical Sciences,

Prof. Head of the Department of Neurology and Neurosurgery
Samarkand State Medical Institute, Republic of Uzbekistan

Emrah Kpesh Ismetovich

Master of the Department of Neurology and Neurosurgery
Samarkand State Medical Institute, Republic of Uzbekistan

Gaybiev Akmal Axmatjonovich PhD

Assistant of the Department of Neurology and Neurosurgery
Samarkand State Medical Institute, Republic of Uzbekistan

The basis of chronic vascular insufficiency of cerebral circulation are diverse, diffuse lesion cerebral brain manifested by neurological and neuropsychological disorders (1, 3). According to statistics, independent research in Z over 20 accrued to date million. a person with discirculatory encephalopathy, and most importantly, there is an increase in this pathology. The importance of solving the problem is due not only to the high prevalence, but also the significance of the problem, as a factor precursor to the development of a brain catastrophe, and as a consequence, social disability. That is, the prevention of a decrease in discirculatory encephalopathy and the provision of competent assistance to patients with cerebrovascular pathology is a paramount task. The reason for the disruption of the cerebral structure of their chronization depends on many factors, this is arterial hypertension, atherosclerosis, diabetes mellitus, etc., but one should not fail to assess the role of endocrine pathology in the formation of discirculatory encephalopathy (2, 5). Specific gravity hypothyroidism among pathologies of endocrine system is growing every year, especially troubled area in Uzbekistan where the incidence is 15% of the population (data Saidrasulovoy MA, 2019 g of.). Among pregnant women living in conditions of severe iodine deficiency of the Republic of Uzbekistan, thyroid pathology is found in 91.1% of cases, including autoimmune thyroiditis Hashimoto in 24% (6, 8). In the older generation, as a rule, primary hypothyroidism occurs due to a lack of iodine in the body, protein and selenium, as well as due to the intake of drugs with anti-thyroid action (antipsychotics, tranquilizers) (4, 7). Diagnosis is difficult at this age, as masquerades as many diseases - coronary heart disease, arterial hypertension, depression. Neurological disorders in the background of hypothyroidism have a special significance, and in recent years, promoted to leading positions, and diagnosis and treatment of patients with discirculatory encephalopathy hypothyroidism, with all the most urgent issues of neurology.

Purpose. To study the features of discirculatory encephalopathy against the background of hypothyroidism.

Material and research methods. The examination was subject to patients under stationary treatment in the neurology department, cardiology 1-clinic for the period 2019-2021; Several patients are taken from the hospital of the Endocrinological Hospital Samarkand city. A total of 63 patients were examined, with 33 people with discirculatory encephalopathy without hypothyroidism (DE); 30 patients with discirculatory encephalopathy with hypothyroidism (DEG). The age of studied patients varied from 45 to 65 years. Gender differences in the range of 1: 1. All patients passed a standard inspection of the neurologist, therapist, endocrinologist. The accompanying factor of the disease, arterial hypertension, cardiovascular pathology was taken into account. Neuropsychological testing on the scales: MMSE, Schulte, and to identify the mental and emotional sphere, the depression scale of Hamelton (HAM-D). Electroencephalography (EEG) - as one of the methods of the instrumental type of research, to detect the hidden forms of brain pathology. Neuroimaging with MRI (magnetic resonance tomography), expanding the possibility of diagnosing cerebrovascular pathology. MRI was mainly conducted to study the structure of the brain, in several cases an analysis of the cervical department was carried out. All patients were ultrasound (in a 3D system) of the thyroid gland, to

identify autoimmune thyroiditis, nodal and diffuse goiter. The duration of the disease by hypothyroidism was revealed in a dynamics from a year to five; Blood analysis on T3, T4 and TSH was carried out by all patients. Statistical analysis was carried out according to standard Student criteria on an individual computer.

Research result. As a result of the study of patients with DE and DEG, neurological symptoms typical for this category of patients were found, but taking into account the division of patients into groups, a difference in the percentage of individual symptoms was revealed. So, in the general structure, the following symptoms took place: violation of convergence in 98% in both groups, horizontal nystagmus, in some cases of an orientation nature, in 24%, also in both groups; smoothness of the nasolabial fold in 81% of cases; pyramidal syndromes (in the form of anisoreflexia) in 100% of cases in the examined patients. Pseudobulbar syndrome in 29.8% of cases, vestibuloataxic syndrome (unsteadiness when walking, instability while standing in the Romberg position) in 56% of cases. individual symptoms, such as astinoneutic syndrome in the group with DE were observed only in 40% of cases, and in patients with DEG in 82.3% of cases. The same pattern was observed in relation to complaints of headache, in patients with DE it is 38%, and in patients with DEG in 93% of cases. According to the analysis of the hormonal level in the group with DEG, the average value of TSH in the blood serum was found to be 9.9 ± 0.1 kmIU / ml, T3 / 5 ± 1.5 mmol / L, T4 - 6.8 ± 1.5 mmol / L, as can be seen, the discrepancy to the norm, and in combination with ultrasound examination of the thyroid gland, confirmed primary hypothyroidism caused by chronic autoimmune thyroiditis, and had the structure of diffuse-nodular goiter in 19%, autoimmune therioditis in 70% of cases; hypothyroidism was found in 3 patients after surgery. An interesting fact was an increase in blood pressure, and if in patients with DEG arterial hypertension was found in 90% of cases, then in the group with DE only 51%. Thus, arterial hypertension is more pronounced in patients with hypothyroidism than without signs of hypothyroidism, which confirms the fact of the risk of hypertension and the risk of acute cerebrovascular accidents. Again, according to the neuroimaging data of MRI studies, in patients with DEG, a change was more often revealed, in the form of multiple foci of a discirculatory nature, scattered across the basal ganglia, ponto-pons, in the aisles 36%, and in patients with DE in 30% of cases; subatraphy of the cerebral cortex in 99% of cases in the DEG group, and in 59% of cases in patients with DE. Leukoriosis in 20% in patients with DEG and 12% in patients with DE. The same pattern is also in relation to the expansion of the gastric space, in the group with DEG in 38%, and in the group with DE in 19%. All this conclusively confirms the aggravated nature of the disorder against the background of hypothyroidism in the brain.

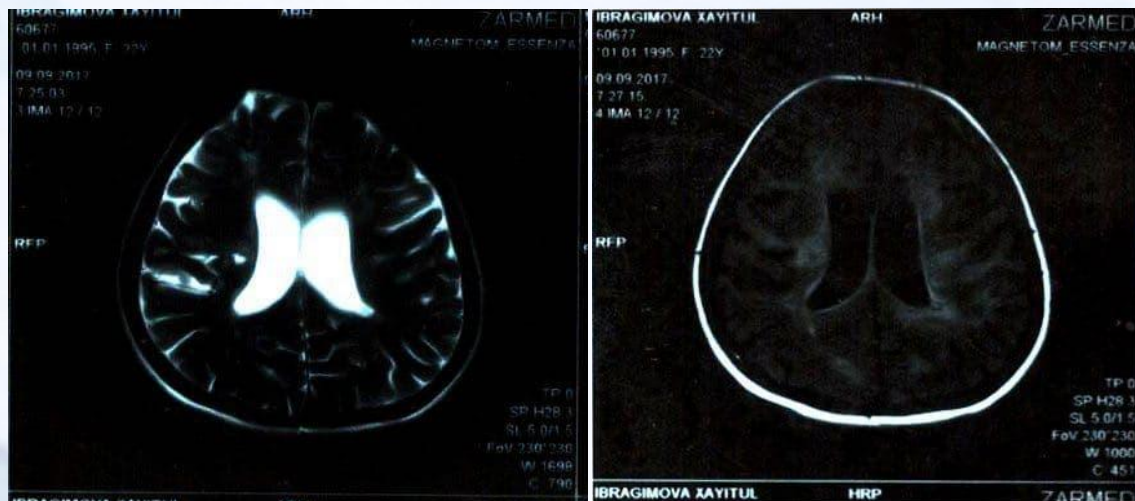


Fig. 1 MRI. B-oh, 52, MRI of the brain with a diagnosis of DEG

According to the EEG in both groups, there is a diffuse expression of the bioelectrical activity in the cerebral posterior regions, but in the group with the DEG is 50% of the patients, while in the group with ED only in 30% of cases. Pathological paroxysmal activity was recorded only in the group with DEG.

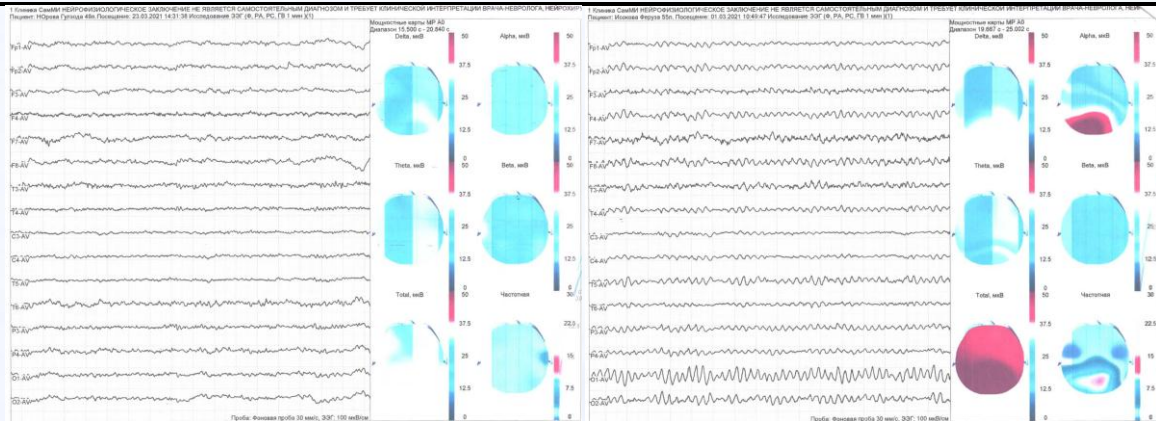


Fig . 2. EEG - b-oh 53 years with d-w DE EEG - b-oh 56 years with d-w DE G

The results of the neuropsychological questionnaire study were mixed. According to the MMSE scale, in patients where hypothyroidism was not pronounced in the initial stage, the indicators in both groups in the normal range, 30 points, with DE patients are similar in terms of indicators. Patients with more pronounced signs of hypothyroidism showed worse results, especially with regard to memory and perception, the reliability is lower than in patients without hypothyroidism ($P < 0.05$). The process of testing itself is difficult for patients with DEG, two patients demonstratively refused to complete the task, the rest, when performing, resorted to the help of others, thus they could not focus on the questions, or explained their behavior by a lack of understanding of the task. By the speed of the object in a specific order, i.e., determination of concentration was performed using a spreadsheet Schulte (Simple Version). The average time to complete the task in patients without hypothyroidism averaged 1.5 minutes (which also speaks of impaired mental performance), and in patients with DEG, the execution time rose to 3-3.5 minutes, and several patients expressed dissatisfaction with the complexity of the procedure. These data indicate a more profound disorders e concentration and reduce cognitive STI. According to many literary scientific sources, it has long been known that patients with discirculatory encephalopathy in their initial manifestations, in addition to a decrease in memory, attention; psycho-emotional signs, in the form of depressive states. With this in mind, the patients underwent the Hamelton Depression Rating Scale. As a result of evaluation of de Press (HDRS) on the first 17 points of total score in patients with ED was slight depressive disorder (from 8 to 13 points) and in the group with ED T depressive disorder average degree ranging from 14 to 18 points. The average total score is lower in patients with DE ($P < 0.05$). In addition, patients in both groups complained of difficulty falling asleep. Almost no difference in the groups revealed warning signs, which corresponded to a weak or medium score. The feeling of fatigue and loss of strength was assessed by 2 points, in the examined patients of both groups the indicators corresponded, with a slight preponderance in the group with DEG.

In this article, an analysis of patients with discirculatory encephalopathy, which combines DE diseases and hypothyroidism, is carried out. In view of the above stated information, you can confidently say that hormonal disorders of the thyroid gland directly exacerbate, and so Originating e age neurologic signs of brain dysfunction, in the form of impaired memory, attention and concentration; anxiety-depressive states. This study needs to continue is, as the severity of hormonal disorders of the thyroid gland and the duration of iodine deficiency are individual for each patient, and depend on the level of injury and the severity of hypothyroidism, the patient's age and komorbitnogo background. The study allows to identify common aspects of clinical laboratory, neurophysiology, neuro-imaging and neuropsychological features discirculatory encephalopathy with hypothyroidism, proving chronization process, and a risk factor for the occurrence of I of stroke. Taking into account the prognosis, it is recommended that all patients conduct an additional examination of the thyroid gland for the presence of hormone levels and the ultrasound nature of changes in the structure of the thyroid gland. All patients with chronic brain disorders require correction of cognitive disorders and anxiety depressive disorders, and in the presence of a detected dysfunction of the thyroid gland is necessary to treatment aimed at reduction of iodine - deficiency.

Literature:

1. Ermolaeva, A.I. Cerebrovascular disorders in hypothyroidism. // Penza: Penz Publishing House . state . University, 2008 .-- 94 p .
2. Arterial hypertension, cerebrovascular pathology and vascular cognitive disorders. Topical issues. A short guide for doctors / Edited by Corresponding Member. RAMS Z.A. Suslina , A.V. Fonyakina , L.A. Geraskina . - M .: 2006. - 48 p., Ill.
3. Malev AL COGNITIVE-PSYCHOMETRIC INDICATORS OF PATIENTS WITH PRIMARY HYPOTHYROIDISM BEFORE AND AFTER TREATMENT / AL Malev , IN Repinskaya, N. Yu. Melnik et al. // International research journal. - 2017. - No. 08 (62) Part 3. - P. 128-131. - URL: <https://research-journal.org/medical/kognitivno-psixometricheskie-pokazateli-pacientov-s-pervichnym-gipotireozom-do-i-posle-lecheniya/> (date of access: 12.05.2021.) . doi : 10.23670 / IRJ.2017.62.082
4. O.E. Kovalenko, O.V. Litvin Chronic cerebral ischemia in patients with arterial hypertension and hypothyroidism o m // International Endocrinological Journal, 2017, Volume 13, No. 1, p. 95-99, p- ISSN 2224-0721, e-ISSN 2307-1427
5. Baranova G.A., Ermolaeva A.I. The course of cerebrovascular pathology in hypothyroidism // Medical Sciences. Clinical Medicine, 2007, No. 3, p. 35-40
6. Mishchenko TS, Zdesenko IV, Mishchenko VN. New possibilities of treatment of patients with dyscirculatory encephalopathy. Mizhnarodnyi nevrologichnyi zhurnal . 2015; 5 (75): 55-64 (Russian).
7. Dzhurabekova A.T. Features of the clinic and course of epilepsy in children with iodine deficiency conditions // Bulletin of the general practitioner, 2001 , No. 2, p. 106-109
8. Dzhurabekova A.T. The defeat of the nervous system in children and adolescents in the iodine-deficient region: Author's abstract . diss Dr. med. Nauk, Tashkent. -2003. -28 p .