и дерматологического индекса качества жизни (DLQI) у больных гнездной алопецией.

Обследовано 48 больных различными формами гнездной алопеции (ГА) в возрасте от 18 до 52 лет. Корреляционный анализ выявил наличие позитивной связи между значением DLQI и ранним возрастом пациентов с алопецией, тяжелым течением, а также выпадением волос более 12 месяцев ($p<0,01$). Выделены два типа реакции при ГА - увеличение или уменьшение содержания кортизола и инсулина в крови в зависимости от активности, степени тяжести и длительности ГА. Повышение коэффициента К ($p<0,05$) у больных с признаками прогрессирования заболевания, тяжелой степенью и длительностью ГА до 3 лет указывает на напряжение адаптационных возможностей организма. Снижение коэффициента К ($p<0,05$) при хронизации и длительности болезни более 3 лет свидетельствует об истощении адаптационных механизмов организма с возможным срывом регуляторных процессов. Выявленные нарушения демонстрируют наличие дезадаптационных расстройств у больных ГА и могут рассматриваться как потенциальные терапевтические мишени.

რეზიუმე

ბუდობრივი ალოპეციის ადაპტაციურ-რეგულატორული მექანიზმი

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ადაპტაციური მექანიზმების დაზიანება იწვევს სტრუქტურულ და ფუნქციურ დარღვევებს ყველა დონეზე, უპირველეს ყოვლისა ზიანდება ნეიროენდოკრინული და იმუნური სისტემები, რაც აუტო-იმუნური დაავადებების განვითარების პათოგენეტიკურ საფუძველს წარმოადგენს. კვლევის მიზანს წარმოადგენდა ადაპტაციური ჰორმონების – კორტიზოლის, ინსულინის და ადაპტაციური პოტენციალის დაძაბვის K კოეფიციენტის შეფასება,ასევე ცხოვრების ხარისხის დერმატოლოგიური ინდექსის (DLQI) განსაზღვრა ბუდობრივი ალოპეციით ავადმყოფებში. გამოკვლეული იყო ბუდობრივი ალოპეციის სხვადასხვა ფორმით დაავადებული 18-დან 52 წლამდე ასაკის 48 პაციენტი. კორელაციურმა ანალიზმა გამოავლინა დადებითი კავშირი ცხოვრების ხარისხის დერმატოლოგიურ ინდექსს ( DLQI), მძიმედ მიმდინარე ალოპეციის მქონე პაციენტების ახალგაზრდა ასაკს და 12 თვეზე მეტ ხანს არსებულ თმის ცვენას შორის ($p<0,01$). გამოვლინდა, რომ ბუდობრივი ალოპეციით ავადმყოფებში სისხლში კორტიზოლის და ინსულინის შემცველობის ზრდა ან შემცირება დამოკიდებულია დაავადების აქტივობაზე, სიმძიმის ხარისხზე და ხანგრძლივობაზე. K კოეფიციენტის ზრდა ($p<0,05$) პაციენტებში, რომელთაც აღენიშნებოდათ დაავადების პროგრესირება და მძიმე ხარისხით ხანგრძლივი მიმდინარეობა, მიუთითებს ორგანიზმის ადაპტაციური შესაძლებლობების დაძაბვაზე, ხოლო მისი შემცირება ($p<0,05$) პაციენტებში, რომელთაც დაავადება აღენიშნებოდა 3 წელზე მეტ ხანს, ამტკიცებს ადაპტაციური მექანიზმების გამოფიტვას რეგულაციური პროცესების შესაძლო დარღვევით. ბუდობრივი ალოპეციით ავადმყოფებში გამოვლენილი დარღვევები ასახავს დეზადაპტაციურ დაზიანებებს და შასაძლებელია განხილული იყოს, როგორც პოტენციური თერაპიული სამიზნე.

## CHARACTERISTICS OF CHANGES IN COGNITIVE FUNCTIONS OF THE PATIENTS WITH HYPERTENSIVE DISEASE

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Cognitive activity is one of the main social components of a person. The degree of development of memory, attention, intelligence forms the personality, determines the success of professional activity, establishes the social status of an individual [8,9]. Cognitive impairment (CI) is one of the most significant medical and socioeconomic problems, which is associated with severe disability of patients, a marked decrease in the quality of life of patients [1,2,7].

In recent years, numerous studies have demonstrated the role of arterial hypertension (AH) as an independent risk factor for development and progression of cognitive disorders in the general population, down to dementia [1,2,7-9]. There is a convincing evidence that the risk factors for the development of CI in AH patients can be: uncontrolled hypertension, hypertensive crises, significant blood pressure variability (BP), age, high nocturnal hypertension (night-peaker) or excessive BP reduction at night (over -dipper) [3,9].

Based on 15-year follow-up of patients older than 70 years, I. Skoog and co-authors concluded that initially high blood pressure (180/100 mm Hg and above) significantly correlated with the risk of developing CI and dementia [12]. The negative effect of hypertension on the development and progression of CI was demonstrated in epidemiological studies of Systolic Hypertension in Europetrials, PROGRESS, LIFE, SCOPE, MOSES [3,14,17,19]. The Honolulu Asia Aging study found that the increase in systolic BP (SBP) for every 10 mm Hg. Art. increased the risk of development of CI by 7-16% [15]. Also, the correlation between systolic and diastolic blood pressure levels and development of CI in elderly patients was established in the Rotterdam and Gotenberg studies [12].

It should be noted that most of the studies have been performed on patients with AH of the older age group with the presence of a stroke [3,4,12,17,19]. Also in a number of works the most pronounced degree of CI violation is dementia [4,7]. There are a few studies showing that at the initial stages of hypertension structural disturbances of cognitive processes are still absent, but there are already disturbances in the processes of neurodynamics [5,9]. The state of higher mental functions for patients with AH of young and middle age remains poorly studied. These patients are an able-bodied contingent, and CI violations can have serious consequences for them. In this regard, the problem of early detection of mild to moderate CI before the emergence of severe clinical signs in patients with AH of working age is relevant.

Objective - Determine the role of age and duration of hypertension (EH) in the development of CI in patients with stage II EH.

**Material and methods.** We examined 102 patients with stage II EH without concomitant diseases, whose average age was 49.84±0.83 years. The average duration of the disease was 8.78±0.60 years. Among the examined patients there were 72 men (70.6%) and 30 women (29.4%). AH of 2nd degree was detected in 41 (40.2%) patients, AH of 3rd degree in 61 (59.8%) patients. The control group consisted of 20 healthy individuals, the average age of which was 52.20±1.87 years. All patients did not receive regular antihypertensive therapy (they took drugs only if their health got worse) or were treated inappropriately (without reaching the target blood pressure levels). The diagnosis of EH was established according to the recommendations of the European Society of Cardiology (2013) [13]. The level of blood pressure was assessed in the office measurement and daily monitoring of BP. Exclusion criteria were stroke, transient ischemic attacks, craniocerebral trauma with loss of consciousness, severe somatic diseases.

The cognitive functions (CF) study was conducted in the first half of the day and assessed using the McNair Memory Self-Assessment Questionnaire and the Montreal Evaluation Scale of the CF (MoCA test) [6,16]. The self-assessment questionnaire for McNair memory was filled by the patient independently and showed a subjective perception of the memory state by the patient himself. Based on the McNair scale, the investigators noted how often they displayed forgetfulness in everyday situations, choosing categories: never (0), rarely (1), sometimes (2), often (3) or always (4). The results of the questionnaire were expressed in points where, with a sum equal to or more than 43 points, the presence of CI was assumed.

With the help of the MoCA test the following components of the CF were assessed: attention and concentration, executive functions, memory, speech, optical-spatial activity, conceptual thinking, account and orientation. The result of the test was determined by summing the points for each of the items. The maximum possible score is 30; Norm - 26 and more, the presence of CI was determined with the indices less than 26 points.

The level of reactive anxiety was assessed by the Spielberger test. In accordance with generally accepted parameters, reactive anxiety indices not exceeding 30 points were considered low, from 31 to 45 points - a moderate level of anxiety, more than 45 points - a high level of anxiety [6].

The severity of the symptoms of depression was determined by the Beck Depression Inventory. The result was assessed by the score: the normal value was from 0 to 9 points, the mild depression level was 10-15 points, the moderate grade 16-19 points, the strong grade 20-29 points, the expressed depression 30 points and higher [6].

Statistical processing of the results of the study was carried out using the computer program “IBM SPSS Statistics 22”.

**Results and their discussion.**. To study the role of age in patients with stage II EH in the development of non-critical CI, the patients we examined were divided into 3 groups. In the first group, up to 45 years of age, there were 27 patients, in the second group of age from 46-55 years - 52 patients, in the third group older than 56 years, 23 patients were included, that is 26.5%, 51% and 22.5% accordantly (Table 1).

The duration of the disease is significantly higher in the older age group by 46.9% ($p<0.05$ in comparison with group 1). Body mass index (BMI), education level, average daily systolic (Av. SBP) and diastolic pressure (Av. DBP) BP in patients of different ages were comparable. BMI and the duration of the control group were comparable to those of all 3 groups of patients. The mean age of the control group was comparable only to patients in the second group.

*Table 1. Indicators of the psychoemotional sphere and CF in patients with stage II EH, depending on the age*

| Indicators, units of measure | Control (n=20) | Age groups(years) | | |
|---|---|---|---|---|
| | | 1 st group Less than 45 (n=27) | 2 nd group 46-55 (n=52) | 3 rd group More than 56 (n=23) |
| Age, years | 52,20 ± 1,87 | 39,37±1,14* | 50,65±0,41◊ | 60,30±0,74▪●* |
| Beck scale, score | 10,95 ± 1,19 | 11,74±1,02 | 12,06±0,93 | 13,96±1,23 |
| Spielberger test, score | 28,35 ± 1,50 | 36,19±2,19 * | 33,31±1,51 | 38,61±2,67 * |
| MoCA test, score | 26,95 ±0,38 | 26,48±0,33 | 25,59±0,29 * | 24,87±0,43▪ * |
| McNair survey, score | 20,05± 2,13 | 19,85±2,15 | 27,64±1,42◊ * | 28,78±2,79▪ * |

*notes: 1. ▪ - differences in the indices when comparing groups 1 and 3 are significant (p<0.05);*
*2. ◊ - differences in the indices when comparing 1 and 2 groups are significant (p<0.05),*
*3. ● - differences in the indices when comparing groups 2 and 3 are significant (p<0.05);*
*4. * the difference between the parameters when compared with the control group is significant (p <0.05)*

*Table 2. Clinical characteristics, parameters of the psychoemotional sphere and CF in patients with stage II EH, depending on the duration of the disease*

| Indicators, units of measure | Disease duration | | |
|---|---|---|---|
| | 1st group - Less than 5 years (n=32) | 2nd group - 5-10 years (n=40) | 3rd group - More than 10 years (n=30) |
| Age, years | 46,88±1,37 | 50,951,33◊ | 51,53±1,56▪ |
| Duration of the disease, years | 5,64±1,19 | 8,18±0,47◊ | 12,93±1,11▪* |
| Beck scale, points | 12,19±1,06 | 13,13±1,02 | 11,67±1,11 |
| Spielberger test, scores | 33,00±1,86 | 35,30±1,84 | 37,63±2,26 |
| McNair questionnaire, points | 19,91±1,60 | 27,40±1,52◊ | 30,07±2,61▪ |
| MoCA test, scores | 26,88±0,30 | 25,50±0,35◊ | 24,23±0,26▪* |

*notes: 1. ▪ - differences in the indices when comparing groups 1 and 3 are significant (p <0.05);*
*2. * - differences in the indices when comparing the 2 and 3 groups are significant (p <0.05);*
*3. ◊ - the difference between the indices when comparing 1 and 2 groups is significant (p <0.05)*

An analysis of the results of the Beck scale showed (Table 1) that the patients we examined had an low level of depression that did not differ significantly depending on the age and parameters of the control group. There is only a tendency to increase the indicators of the Beck scale with age.

The average indices of reactive anxiety for the three age groups refer to a moderate level of anxiety and do not differ significantly with age. In this case, the surveyed patients recorded a difference in the level of anxiety relative to the control group, reaching a reliable value relative to 1 and 3 groups of patients.

Analyzing the data of the MoCA test, it should be noted that the trend towards a decrease in CF values with increasing age is noted. Thus, patients of the 1st group have no CI. In patients of the 2nd group there is a slight decrease - by 3.2% in comparison with group 1. A significant decrease in the MoCA test score of 6.1% is noted in the group of patients older than 56 years relatively to persons aged under 45. The proportion of patients who showed CI in the age groups up to 45 y.o., from 46 to 55 and older than 56 was 29.6%, 53.8% and 56.5%, accordantly, which again confirms the increase of CI with age. Regarding the parameters of the control group, the patients experienced a decrease in CF on the scale of the MoCA test, reaching a reliable value already in relation to the 2 groups of patients and even more pronounced in group 3. The conducted correlation analysis showed the existence of the relationship between the age of the patients being surveyed and the state of CF. Thus, the MoCA test was significantly correlated with the age of EH patients ($r = -0.41$, $p < 0.05$).

The results of the McNair questionnaire show the same trend as the MoCA test: in group 2 and 3 patients, the values of the indicators are 39.2% and 44.9% higher relative to group 1. It should be noted that the proportion of patients who scored 43 or more points in the McNair questionnaire in groups 1, 2 and 3 was 3.7%, 11.5% and 17.4%, accordantly. Regarding the parameters of the control group, the same trend is observed as in the MoCA test.

Thus, with an increase in the age of patients with EH,

there is an increase in CI. In the older age group, CI is more pronounced. A significant decrease in CF was recorded in patients with EH 2 group when compared with a group of healthy individuals who were comparable in age to each other.

To study the role of the duration of EH in the development of non-severe CI and the state of the psychoemotional sphere, the patients were divided into 3 groups (Table 2.). BMI, duration of education, and AV.SBP and Av.DBP were comparable in patients with different duration of hypertension.

We established a significant decrease in CF in the examined patients with an increase in the duration of the disease. Thus, the MoCA test in group 3 of patients is significantly less than in groups 1 and 2, 9.9% and 4.9%, accordantly. In the individual assessment of the MoCA test, the proportion of patients who showed CI in groups 1-3 was 18.8%, 52.5%, and 83.3%, accordantly.

The results of the McNair questionnaire in the examined patients demonstrate the same sequence. The proportion of patients who scored 43 or more points in the McNair questionnaire in groups 2 and 3 was 5% and 30%, accordantly, and 1 group did not. The obtained results indicate the presence of a certain dependence of CI on the duration of the disease in patients with EH.

When assessing the symptoms of depression based on the results of the Beck scale, we did not find significant differences between groups with different duration of the disease. The averages in the groups corresponded to an easy level of depression. Analyzing the indicators of the Spielberger test, we also did not reveal any significant differences between groups of patients with different duration of the disease. As the duration of EH increases, there is only a tendency to increase the level of anxiety. The average indices of reactive anxiety for the three groups of EH duration refer to a moderate level of anxiety. When conducting the correlation analysis, we did not establish any significant relationship between the results of CF tests and tests that characterize the level of depression and anxiety.

Thus, the presence of hypertension lasting more than 5 years contributed to the development of CI in the patients being examined. A greater decrease in CF was observed in patients with a longer duration of the disease.

It is known that prolonged term of hypertension leads to a different degree of severity [2,3,7,10,18,19] and is a widespread pathogenetic factor in the formation of dementia.

Based on the results of our study, it was found that CI in patients with EH is already diagnosed with AH duration> 5 years and is significantly more frequent in patients with AH duration> 10 years than in patients with AH duration from 5 to 10 years. The data obtained are consistent with the results of similar studies. For example, in the Framingham study for 12-15 years, 1695 patients with AH at the age of 55 to 88 without a history of stroke were observed and established a reliable negative feedback between the levels of SBP, DBP, duration of hypertension and auditory and visual memory according to neuropsychological tests [3]. In another study it was also shown that as the duration of hypertension increased, the number and severity of CI increased. CI is detected in 73% of patients, both middle and elderly with AH duration> 5 years, with moderate CI cases 26.5% and mild cases 46.5% [15]. However, our results do not agree with a number of earlier studies, in which the dependence of the duration of the history of AH and CI was U-shaped [5]. At the same time, less favorable parameters of CF were found in patients with duration of disease less than 1 year and more than 10 years. The authors of the work explain the results obtained by the imperfection of the adaptive capabilities of the organism during these periods of the disease.

As shown by epidemiological studies, there are close, age-related relationships of hypertension with a decrease in CF and dementia [3,14,15,17,19]. In the cross sectional study COGNIPRES, in which 1,579 people participated, it was shown that the worst performance of neuropsychological tests was associated with age over 80 , uncontrolled hypertension and poor response to antihypertensive therapy [11]. Analysis of prospective observations of patients with AH demonstrates that the observed high BP in the middle age (especially SBP) in later years at a later age is accompanied by a high risk of developing CI and dementia [15]. Almost all the data presented in the scientific literature are obtained for populations of older age groups. As a result of our study, there was an increase in CI with age, that is, patients older than 56 years showed significantly lower results of neuropsychological testing.

According to the literature, CI are often combined with emotional disorders or are secondary in relation to emotional disorders [6]. The presence of severe depression makes it possible to suspect the secondary nature of CI. In cerebrovascular diseases, depression and CI are a single clinical symptom complex, while depression and cognitive deficit enhance each other [4]. In our study, there were no statistically significant differences between the indices of both depression and reactive anxiety against the background of the increase in CI with an increase in the duration of the disease and age. This may be due to the predominance of a mild degree of depression in the majority of patients with CI, which is less detrimental to CF than moderate or severe depression.

It should be noted that in our work, the self-assessment questionnaire of McNair memory significantly less often revealed CI in the patients under examination. Probably, this fact can be explained by the fact that the McNair questionnaire was filled by the patient and showed a subjective perception of the memory state by the patient himself. The MoCA test method in patients with stage II EH in our work showed a higher sensitivity to noncritical CI. The obtained data are quite comparable with the results of modern studies. Thus, the Montreal Scale of Evaluation of the CF, recommended by most foreign experts to determine noncritical CI, has a high sensitivity and specificity to non-critical CI of 87% and 90%, accordantly [16].

Given the high prevalence, progression, a significant

incidence of complications, the diagnosis of primary, non-critical CI is considered as a priority area of primary prevention of cardiovascular complications [20].

**Conclusions.**

1. Patients with stage II EH have a decrease in CF. And with an increase in the age of the patients being surveyed and the duration of the history of AH, there is a significant increase in CI, significantly different from those of healthy individuals.

2. CI in patients older than 56 with stage II EH is significantly more likely to be diagnosed than in patients under 45 and from 46 to 55 y.o..

3. CI occur significantly more often in patients with AH duration more than 10 years than in patients with AH duration from 5 to 10 years and with a history of AH of up to 5 years.

4. An integral part of a comprehensive examination of patients with EH should be the identification of CI, early diagnosis of which is a measure of the prevention of dementia in the future.

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## SUMMARY

## CHARACTERISTICS OF CHANGES IN COGNITIVE FUNCTIONS OF THE PATIENTS WITH HYPERTENSIVE DISEASE

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Decline of the cognitive functions is one of the modern medicine actual problem. The influence of hypertension as modifiable risk factor in the evolution of cognitive impairment is emphasized in numerous investigations. Almost

all the proposed in research literature data were obtained from the investigation of old patients group, who had high indexes of blood pressure and stroke histories. Therefore, we think that it is very impotent to detect the slight and moderate cognitive impairment of hypertensive patients of working age until the expressed clinical signs appear.

Objective - determine the age and hypertension duration influence on the evolution of cognitive impairments in patients with essential hypertension of the second stage.

There were examined 102 patients with essential hypertension of the second stage, which had not any attendant illnesses. Their average years were about 49,84±0,83 average. Disease duration was approximately 8,78±0,60. According to the purpose of examination all patients were divided by age and disease duration into 3 groups. To study cognitive impairment used a number of neuropsychological tests.

Analyzing the MoCA test data of examined patients it should be noted a tendency to decreasing of cognitive function indexes with age increasing. Thus, the patients of the first group have no cognitive impairment. But authentic lowering of MoCA test results may be noted in the patients group of 56 years and higher, up to 6,1% in comparison with the patients under 45 years.

The indexes of MoCA test in the group of patients with arterial hypertension duration more than 10 years were authentically lower comparing with the group of patients with disease duration up to 5 years and patients with arterial hypertension duration of 5 to 10 years in 9,9% and in 4,9% accordantly.

We have found that with increasing duration of the disease and age the working age patients with essential hypertension of the second stage, significant increase in cognitive impairment was observed. Diagnosing of cognitive impairment is the measure of prevention of dementia in future and it must be an inseparable part of system examination of hypertensive patients.

**Keywords:** duration of arterial hypertension, cognitive functions, age.

**РЕЗЮМЕ**

**ХАРАКТЕРИСТИКА ИЗМЕНЕНИЙ КОГНИТИВНЫХ ФУНКЦИЙ У БОЛЬНЫХ ГИПЕРТОНИЧЕСКОЙ БОЛЕЗНЬЮ**

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Снижение когнитивных функций является одной из актуальных проблем современной медицины. Влияние артериальной гипертензии (АГ) как изменяемого фактора риска развитиия когнитивных нарушений подчеркивается в многочисленных исследованиях. Почти все предложенные в литературе данные получены на популяции лиц старшей возрастной группы. Исходя из вышеизложенного, представляет интерес ранее выявление когнитивных нарушений у больных гипертонической болезнью трудоспособного возраста до появления выраженных клинических признаков.

Целью исследования явилось определение роли возраста и длительности артериальной гипертензии в развитии когнитивных нарушений у больных гипертонической болезнью II стадии.

Обследовано 102 больных гипертонической болезнью II стадии без сопутствующих заболеваний, средний возраст которых составил 49,84±0,83 лет. Продолжительность заболевания - 8,78±0,60 лет. Пациенты по возрасту и длительности заболевания разделены на 3 группы. Для изучения когнитивных нарушений применяли ряд нейропсихологических тестов.

Анализ данных теста МоСА у обследованных пациентов выявил тенденцию к снижению показателей когнитивных функций с возрастом: у пациентов I группы (< 45 лет) когнитивных нарушений не выявлено, достоверное снижение результатов теста МоСА на 6,1% в сравнении с пациентами I группы отмечается в III группе (56 лет и старше).

Индексы теста МоСА в III группе пациентов (продолжительность АГ более 10 лет) достоверно ниже в сравнении с пациентами I и II групп (длительность заболевания до 5 лет и 5-10 лет) на 9,9% и 4,9%, соответственно.

В результате исследования установлено, что с увеличением длительности заболевания и возраста трудоспособных больных гипертонической болезнью II стадии отмечается достоверное нарастание когнитивных нарушений, диагностика которых на ранней стадии заболевания является мерой профилактики деменции в будущем.

რეზიუმე

კოგნიტიური ფუნქციების ცვლილებების დახასიათება ჰიპერტონიით ავადმყოფებში

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[1]უკრაინის ჯანდაცვის სამინისტროს ზაპოროჟიეს დიპლომისშემდგომი განათლების სამედიცინო აკადემია, კარდიოლოგიის კათედრა; [2]გადაუდებელ მდგომარეობათა მედიცინის კათედრა; [3]სუმის სახელმწიფო სამედიცინო უნივერსიტეტი, ნეიროქირურგიის და ნევროლოგიის კათედრა, უკრაინა

კოგნიტიური ფუნქციების დაქვეითება წარმოადგენს თანამედროვე მედიცინის ერთ-ერთ აქტუალურ პრობლემას. ხანდაზმულ პირებში კოგნიტიური ფუნქციების დაქვეითება და მისი რისკ-ფაქტორების კვლევის საკითხები თითქმის ამომწურავად არის წარმოდგენილი. სადღეისოდ განსაკუთრებულ ყურადღებას იმსახურებს კოგნი-

ტიური დარღვევების გამოვლენის და მკურანალობის საკითხების შესწავლა შრომისუნარიან პირებში ჰიპერტონული დაავადებით ჯერ კიდევ კლინიკური ნიშნების გამომჟღავნებამდე.

კვლევის მიზანს წარმოადგენდა ავადმყოფის ასაკის და ჰიპერტენზიის ხანძლივობის ზემოქმედების განსაზღვრა შრომისუნარის მქონე II სტადის ჰიპერტენზიით დაავადებულ პირებზე.

გამოკვლეულია 102 II სტადიით ჰიპერტონული დაავადებით პირი, სხვა თანმხლები და-ავადების გარეშე. მათი საშუალო ასაკი შეადგენდა 49,84±0,83 წ., დაავადების ხანგრძლივობა - 8,78±0,60 წ. პაციენტები ასაკისა და დაავადების ხანძლივობის გათვალისწინებით გაყოფილი იყო 3 ჯგუფად. კოგნიტიური დარღვევების შესწავლისათვის გამოყენებული იყო ნეიროფსიქოლოგიური ტესტები.

MoCA ტესტის მონაცემების ანალიზმა გამოავლინა კოგნიტიური ფუნქციის მაჩვენებლების პირდაპირპროპორციული დამოკიდებულება ავადმყოფის ასაკთან: I ჯგუფის პაციენტებს კოგნიტიური დარღვევები არ აღმოაჩნდა. MoCA ტესტით მიღებული მაჩვენებლების დაქვეითება აღინიშნა 56 წლის პაციენტთა ჯგუფში შედარებით 45 წლის ასაკის პაციენტებთან.

MoCA ტესტის ინდექსი ავადმყოფებში არტერიული დაავადებით 10 წელი და მეტი ხანძლივობით გაცილებით უფრო მაღალი იყო, შედარებით ავადმყოფებთან 5-დან 10 წლამდე ხანძლივობით (9,9%-ით და 4,9%-ით, შესაბამისად).

ჩატარებული კვლევის შედეგების გათვალისწინებით, ავტორების მიერ დადგენილია, რომ II სტადიის ჰიპერტონული დაავადებით შრომისუნარიანი პირების ასაკი და დაავადების ხანგრძლივობა იწვევს კოგნიტიური დარღვევების სარწმუნო მატებას. დაავადების ადრეულ სტადიაზე კოგნიტიური დარღვევების დროული დიაგნოსტიკა უზრუნველყოფს მომავალში დემენციის პროფილაქტიკას.

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# АНАЛИЗ УРОВНЯ ПРОВОСПАЛИТЕЛЬНЫХ ЦИТОКИНОВ ПРИ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ У ДЕТЕЙ

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Внебольничная пневмония у детей является наиболее актуальным инфекционным заболеванием в связи с высокой распространенностью среди детской популяции в развивающихся и развитых странах [1,4]. Высокий удельный вес в структуре заболеваемости у детей всех возрастных групп, осложненное течение опеределяет актуальность изучения клинических и диагностических аспектов внебольничной пневмонии [2,5,11]. Несмотря на совершенствование методов диагностики, лечения и профилактики, прогресс медицинской науки в разработке инновационных технологий по сей день выраженных тенденций к снижению уровня заболеваемости и смертности детей в результате заболеваний бронхолегочной системы не определяется. Актуальным остается подход к оптимизации комплекса мероприятий в диагностике внебольничной пневмонии в детском возрасте. Разработанные подходы должны основываться на верифицированных данных объективного исследования. На современном этапе латентное течение пневмонии у детей, особенно на ранних этапах заболевания, определяет ее позднюю диагностику, предполагает развитие осложнений. По мере совершенствования способов диагностики различных видов факторов, способствующих развитию воспалительного процесса в системе органов дыхания у детей все более актуальной и необходимой становится задача выяснения динамики количественного содержания цитокинов. В настоящее время растет интерес к изучению цитокинового профиля у детей. Ряд исследований свидетельствуют о том, что цитокины регулируют выраженность и продолжителность воспалительного процесса [3,6,9,10]. В связи с этим, изучение возможности определения уровня провоспалительных цитокинов, в частности интерлейкина 6 (Interleukin 6, IL-6) и фактора некроза опухоли альфа (tumor necrosis factor alpha, TNF-α) определит их практическую значимость для оценки прогнозирования течения внебольничной пневмонии у детей.

Целью исследования явился анализ изменений показателей провоспалительных цитокинов (IL-6, TNF-α) в сыворотке крови и моче при внебольничной пневмонии у детей.