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Study of Memory and intellectual assessment of critical patients.
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Were examined 150 critical patients, 80-man, 70-woman. Patients were divided into two groups by educational level (higher and primary education). Examinations were held in dynamics, as in critical condition as after elimination of critical condition. Staff of the clinics (doctors, assistants) with 30 workers were also examined as a Control Group. Research showed that changes in critical condition, is mostly reflected in the form of short-term memory crush. Herewith changes in memory is mostly expressed in patients with primary education. However, after critical condition eradication we have an appreciable tendency of memory adjustment. The intellectual abilities are restrained in critical condition, the level of which lies on the level of patient's education. Concerning to patients psychological condition, particularly perception of condition, orientation in time and space more or less was decent

Kew Words: Psychological condition, Memory, Intellectual assessment, Critical Patients,

Introduction: Critical condition is the presence of life, in which life is in danger and without a special medical service can have a lethal result in a short time. Is such condition psychics of patient is negatively influenced by hard condition of health, being aware of danger and hopelessness. These changes are also deepening with brain hypoxia, respiratory insufficient and with other undesirable factors. The influence is also raised by surroundings in which the patient is under permanent monitoring, as well as narcosis or other medicines are used during the treatment also has significant impact on the patient's condition. Till now, despite our works which were published last year and were the first steps made in this field of study (Z. Kheladze and other, 2014, There haven't been done any research based on the patient's psychology.

Materials and Methods: From 150 critical patients (80-man, 70 –woman) examined, 42 were under 60, 99 above 60 and 9 above 80. These patients were treated in Critical Care Clinics for ischemia, hemorrhagic, Guillain–Barré syndrome (GBS), pneumonia and for other heart diseases. Patients were on spontaneous ventilation, they've preserved consciousness. Memory and psychological condition were examined with special questionnaires. In the first group were patients with higher education, second – with primary education. Examinations were held in dynamics, as in critical condition as after elimination of critical condition. Staff of the clinics (doctors, assistants) with 30 workers were also examined as a Control Group. To examine short-term and long-term memory statuses, we've used methods which were provided by L.S. Vigodstki (1921) and H. J. Ayzenk (1941). For a short-term memory test, interviewers were given 20 words, about 30 seconds after which, they were asked to speak out remembered words. For each correct answer 1 point was given. 0-4 points were represented as poor, 4-9 – Fair, 9-15 – good, 15 – 20 – Excellent. For a long-term memory test we used unknown text, which were given to interviewers for 1 minute, after 30 minutes they had to tell the content of the topic. Marking system was following: 0-25 – Poor, 25-49 fair, 50-74 good and 74-100 excellent. Intellectual ability was tested by the special questionnaires, which were provided by Vigotski and Aizenks. Questionnaires were drawn up

from the various fields of sciences. The questions were shown only once and time to answer was determined as 10 minutes. 1 point for each correct answer. 15-20 represents a high mark; 10-14 middle; 5-9 weak; 0-4 the bad level. The level of adequate perception of their condition, orientation in time and space, by themselves, was assessed as well. Results have been evaluated by the variational statistical method. The trust efficiency coefficient was counted by 99% probability.

Results and Discussion: The results are presented in the Table.

Table N1. Results of the memory test:

N	Results	Short-term Memory	Long-term Memory
1.	Bad	20%	4%
2.	Fair	80%	25%
3.	Good	–	52%
4.	Excellent	–	1%

The first table shows short-term and long-term memory test results. As we can see 4% of critical patients have bad results in long-term memory test, which was marked as 3 points. 25% - Fair (4 point). 52% - Good (6-7 points) and only 1% with excellent evaluation (14 points). According to short-term memory test 20% of patients had bad results (15 points), fair – 80 % with 65 points.

Table N2. Memory condition in Critical Patients

N	Research Groups	Short-term memory	Long-term memory
		$X \pm m$ 4,4 ± 0.1	49,8±0,1
1.	Critical patients with Higher education		
	Critical patients with primary education.	$X \pm m$ 4,1 ± 0.1	46,6±0,1
2.		P1/2 P< 0.001	P< 0.001

The second table shows short-term and long-term results for critical patients with higher and primary education. According to this figure there is a sharp decrease of memory in patients with primary education in comparison to patients with higher education.

Table N3. Memory condition in Critical Patients.

Research Group	Short-term Memory	Long-term memory
Patients in critical condition	$X \pm m$ 4,5 ± 0.01	44,25±0,1

Patients after critical condition elimination.	X ± m	5,45 ± 0.1	53,5±0,1
		P< 0.001	P< 0.001
	P1/2		

The third table shows the results of critical patients as in critical condition itself, as after it. We can see that short-term memory as well as long-term one is noticeably increased after the elimination of critical condition

Table N4. Memory assessment of patients in comparison to a medical staff.

N	Research groups	Short-term memory	Long-term memory
	Critical Medical staff	X ± m 7,4 ± 0.1	80,8±0,1
1.	Critical Patients	X ± m 4 ± 0.1	60±0,1
2.		P1/2 P< 0.001	P< 0.001

The fourth table and diagrams show the findings about long-term and short-term memory condition, in critical patients and also in critical medical staff. According to the data presented in the diagrams, short-term and long-term memory are both reduced in critical patients.

Table N5. Condition of intellect in critical patients by education level.

Research Groups	Intellect
Critical patients with higher education	X ± m 3,44 ± 0.01
Critical patients with primary education	X ± m 3,02 ± 0.01
	P1/2 P< 0.001

The fifth table and diagrams show the findings about the condition of intellect in critical patients. According to the data presented in the diagrams, critical patients with higher education revealed a weak level of intellect and patients with primary education showed a bad level of intellect. According to psychological questioning, 55% of patients perceived themselves inadequately but 70 % considered that medical treatment was necessary, also they were pleased to medical staff service. 35 % of patients didn't know in which section they were receiving treatment, only 40 % knew the diagnosis and 43% of patient had the orientation in time and space.

Conclusion: Research showed that changes in critical condition, is mostly reflected in the form of short-term memory crush. Herewith changes in memory is mostly expressed in patients with primary education. However, after critical condition eradication we have an appreciable tendency of memory adjustment. The intellectual abilities are restrained in critical condition, the level of which lies on the level of patient's education. Concerning to patients psychological condition, particularly perception of condition, orientation in time and space more or less was decent.

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ზ.ხელაძე,გ.ჩხარტიშვილი,ე.ბიბილური,ზვ.ხელაძე,თ.ქურციკიძე მეხსიერებისა და ინტელექტის შესწავლა კრიტიკულ ავადმყოფებში.

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