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## A COMPARATIVE CHARACTERISTIC OF DIFFERENT KINDS OF IN-HOSPITAL TREATMENT AS AN ELDERLY PATIENTS' WITH DISCIRCULATORY ENCEPHALOPATHY QUALITY OF LIFE FORMATION FACTOR

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**Summary.** The research was based on Belgorod municipal hospital №1 and Belgorod veterans' hospital. A group of 30 patients from 60 to 74 years was selected in each hospital (median age in municipal hospital was  $68,8 \pm 3,2$  years, in veterans' hospital  $75,5 \pm 2,5$  years). For quality of life examination we used sf-36 questionnaire which has eight scaled scores; the scores are weighted sums of the questions in each section. Scores range from 0 to 100 Lower scores mean more disability, higher scores mean less disability. The sections are: Vitality, Physical functioning, Bodily pain, General health perceptions, Physical role functioning, Emotional role functioning, Social role functioning, Mental health. In addition we studied clinic-epidemic peculiarities of elderly persons in care homes in comparison with non-organised persons. Patients were divided in two groups. The first included 307 non-organised individuals with median age of  $72,5 \pm 1,3$  years who spent all their time at home. This part of study was based on Belgorod municipal polyclinic №1. The other group included 305 elderly people with median age of  $72,1 \pm 1,2$  years living in Shebekino and New Oskol care houses.

**Key words:** discirculatory encephalopathy, quality of life, in-hospital treatment, elderly patient.

## СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА РАЗЛИЧНЫХ ВИДОВ СТАЦИОНАРНОЙ ПОМОЩИ КАК ФАКТОРА В ФОРМИРОВАНИИ КАЧЕСТВА ЖИЗНИ ПОЖИЛЫХ БОЛЬНЫХ С ДИСЦИРКУЛЯТОРНОЙ ЭНЦЕФАЛОПАТИЕЙ

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**Резюме.** Исследование проводилось на базе неврологических отделений городской больницы № 1 г. Белгорода и ОГКУЗ «Госпиталь для ветеранов войн» г. Белгорода. В каждом стационаре нами были отобраны по 30 пациентов в возрасте от 60 до 74 лет (средний возраст респондентов в многопрофильном

стационаре составил  $68,8 \pm 3,2$  года, в гериатрическом  $75,5 \pm 2,5$ ). Для оценки качества жизни, связанного со здоровьем, мы использовали опросник sf-36. Данный опросник является профильным и включает 8 шкал: «физическое функционирование», «ролевая деятельность, обусловленная физическим состоянием», «телесная боль», «общее состояние здоровья», «жизненная активность», «социальное функционирование», «ролевое функционирование, обусловленное эмоциональным состоянием», и «психическое здоровье». Показатели каждой шкалы варьируют от 0 до 100, где 100 баллов соответствуют полному здоровью. Также изучались клиничко-эпидемиологические особенности контингента пожилых людей, находящихся в домах престарелых в сравнении с неорганизованным пожилым населением. Пациенты были распределены на две группы. В первую группу были включены пожилые люди, которые постоянно находились в домашних условиях (неорганизованное население), объем выборки в этой группе составил 307 человек, средний возраст был  $72,5 \pm 1,3$  года, получавший амбулаторную помощь в Белгородской городской поликлинике № 1. Во вторую группу были включены пожилые люди, которые проживали в домах престарелых гг. Шебекино и Новый Оскол Белгородской обл. Объем наблюдения составлял 305 человек, их средний возраст составлял  $72,1 \pm 1,2$  года.

**Ключевые слова:** дисциркуляторная энцефалопатия, качество жизни, связанное со здоровьем, пациенты пожилого возраста, стационарная помощь.

**Research actuality.** Cerebrovascular disorders present a serious medico-social problem all over the world. Discirculatory encephalopathy remains among the most common diseases diagnosed in elderly patients. At present time health-related quality of life is a frequently used criteria to examine patient's condition and treatment efficiency. However, no research with comparative analysis of different kinds of in-hospital treatment as an elderly patients' with discirculatory encephalopathy quality of life formation factor in up-to-day literature.

**The aim of our research:** the comparative analysis of different kinds of in-hospital treatment as an elderly patients' with discirculatory encephalopathy quality of life formation factor.

**Material and methods.** The research was based on Belgorod municipal hospital №1 and Belgorod veterans' hospital. A group of 30 patients from 60 to 74 years was selected in each hospital (median age in municipal hospital was  $68,8 \pm 3,2$  years, in veterans' hospital  $75,5 \pm 2,5$  years). For quality of life examination we used sf-36 questionnaire which has eight scaled scores; the scores are weighted sums of the questions in each section. Scores range from 0 to 100 Lower scores mean more disability, higher scores mean less disability. The sections are: Vitality, Physical functioning, Bodily pain, General health perceptions, Physical role functioning, Emotional role functioning, Social role functioning, Mental health. The statistical validity was approved by Student criterium.

In addition we studied clinic-epidemic peculiarities of elderly persons in care homes in comparison with non-organised persons. Patients were divided in two groups. The first included 307 non-

organised individuals with median age of  $72,5 \pm 1,3$  years who spent all their time at home. This part of study was based on Belgorod municipal polyclinic №1. The other group included 305 elderly people with median age of  $72,1 \pm 1,2$  years living in Shebekino and New Oskol care houses.

Table 1.

Medico-social characteristic of elderly persons with chronic cerebrovascular insufficiency in care houses and at home

Characteristic	Place of permanent residence	
	At home (n=307)	In care house (n=305)
Median age (years)	$72,5 \pm 1,3$	$72,1 \pm 1,2$
widowed (%)	$62,1 \pm 1,5$	$72,3 \pm 1,4$
Presence of children (%)	$81,9 \pm 1,9$	$82,4 \pm 1,8$
physical disability (%)	$72,8 \pm 1,4$	$72,4 \pm 1,5$
Capacity for self-service (%)	$72,5 \pm 1,5$	$61,5 \pm 1,3$
Polymorbidity (%)	$93,1 \pm 1,4$	$92,4 \pm 1,5$
Cognitive dysfunction (%)	$23,1 \pm 1,1$	$24,2 \pm 1,1$
Need in assistive devices (%)	$35,2 \pm 1,8$	$34,1 \pm 1,7$

### Results and discussion.

The quality of life analysis found valid difference in all criteria between groups of municipal and veterans' hospitals.

#### Physical functioning.

There were no significant differences in this scale between patients of municipal (44,2 pts) and veterans'(44,5 pts) hospitals on admission. By the end of treatment both groups demonstrated positive dynamics, but the growth in veterans' hospital group was more significant than in municipal hospital ( $20,3 \pm 18,6$  and  $14,4 \pm 9,9$  pts respectively). The post-hospital period presented serious differences in two groups. The municipal hospital group presented decrease of scale by  $16,8 \pm 7,7$  pts, while the veterans' hospital group still had growth by  $3,1 \pm 13,9$  pts.

### Social role functioning

On admission the veterans' hospital group was scaled significantly lower (18.6 pts) than the municipal hospital group (39.5 pts). By the end of treatment both groups demonstrated positive dynamics, but the growth in veterans' hospital group was more significant than in municipal hospital ( $54,0 \pm 20,2$  and  $2,9 \pm 11,8$  pts respectively). The post-hospital period presented scale decrease in both groups, but in the veterans' hospital group it was more significant than in the municipal hospital group ( $9,7 \pm 19,3$  and  $2,9 \pm 20,6$  pts respectively).

### Bodily pain.

This scale demonstrated severe decrease on admission, more prominent in the veterans' hospital group (34,1 pts) than in the municipal hospital group (40.7 pts).

By the end of treatment both groups demonstrated positive changes. The growth in veterans' hospital group was more significant than in municipal hospital ( $34,9 \pm 22,2$  and  $8,0 \pm 14,2$  pts respectively). The post-hospital period presented scale decrease in both groups, but in the municipal hospital group it was more significant than in the veterans' hospital group ( $5,2 \pm 12,5$  and  $2,4 \pm 19,6$  pts respectively).

### General health perceptions

This scale demonstrated almost equal decrease for both groups on admission (41.9 pts for the veterans' hospital group and 42.3 pts for the municipal hospital group)

By the end of treatment both groups demonstrated positive changes. The growth in veterans' hospital group was more significant than in municipal hospital ( $13,5 \pm 16,6$  and  $11,5 \pm 9,1$  pts respectively). The post-hospital period presented serious differences in two groups. The municipal hospital group presented decrease of scale by  $11,5 \pm 9,4$  pts, while the veterans' hospital group still had growth by  $1,5 \pm 15,9$  pts.

### Vitality

The vitality scale scoring evidenced the decrease up to 38.9 pts for the municipal hospital group and 46.3 pts for the veterans' hospital group. Treatment led to growth both in the municipal hospital group ( $14,7 \pm 9,8$  pts) and the veterans' hospital group ( $19,2 \pm 13,4$  pts). The post-hospital period presented scale decrease in both groups, but in the municipal hospital group it was much more significant than in the veterans' hospital group ( $24,7 \pm 9,7$  and  $2,1 \pm 13,8$  pts respectively).

### Social role functioning

This scale scoring was reduced to 52.6 pts for the municipal hospital group and 50.6 pts for the veterans' hospital group. Treatment led to growth both in the municipal hospital group ( $24,8 \pm 15,6$  pts) and the veterans' hospital group ( $24,0 \pm 20,4$  pts). But in the post-hospital period the veterans' hospital group demonstrated the dramatic fall of the scale by  $30,7 \pm 14,2$ , while in the municipal hospital group it remained almost the same – the reduction was only by  $0,2 \pm 19,0$

### Emotional role functioning

On admission the veterans' hospital group was scaled 45.2 pts, the municipal hospital group 36.3 pts. By the end of treatment both groups demonstrated positive dynamics, the growth in veterans' hospital group was almost the same as in the municipal hospital ( $33,3 \pm 29,2$  and  $35,5 \pm 19,5$  pts respectively). The post-hospital period presented scale decrease in both groups, but in the veterans' hospital group it was more significant than in the municipal hospital group ( $34,4 \pm 10,1$  and  $4,3 \pm 19,2$ )

### Mental health

On admission the veterans' hospital group was scaled 53.6 pts, the municipal hospital group 36.4 pts. By the end of treatment both groups demonstrated positive dynamics, the growth in veterans' hospital group was  $21,1 \pm 17,8$ , in the municipal hospital  $17,8 \pm 14,1$ . The post-hospital period presented scale decrease in both groups, but in the veterans' hospital group it was more significant than in the municipal hospital group ( $13,7 \pm 9,2$  and  $6,4 \pm 12,0$ )

## **The clinic-epidemiology of desadaptation syndroms in elderly persons with cerebrovascular insufficiency in care houses.**

The acquired results present that elderly persons with chronic cerebrovascular insufficiency in care houses more frequently than those who live at home present borderline mental disorders – anxiodepressive and emotionally labile syndromes; gastrointestinal malfunction - irritable colon; sense organ disorders - sensorineural hearing loss, cataract; other diseases - benign prostatic hyperplasia, teeth problems.

Table 2

The quantity of elderly persons with cerebrovascular insufficiency who significantly more often present other diseases.

Pathology	Residence
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	Care house		At home	
	Quantity	%	Quantity	%
anxiodepressive syndrom	72	23,6	50	16,3
emotionally labile syndrom	70	22,9	41	13,4
irritable colon	149	48,9	101	32,9
sensorineural hearing loss	201	65,9	151	49,2
cataract	179	58,7	102	33,2
benign prostatic hyperplasia	121	39,7	102	33,2
teeth problems	281	92,1	170	55,4

The analysis of main geriatric disadapating syndroms revealed that dizziness, falls, hearing and vision loss were much more common in care houses residents than among those who lived at home  $p < 0,05$ .

Table 3

Main geriatric disadapating syndroms among care houses residents and non-organised elderly persons with chronic cerebrovascular insufficiency.

syndrom	Residence			
	Care house		Care house	
	Quantity	Quantity	Quantity	Quantity
Falls	42	13,8	29	9,5
Dizziness	174	57,1	102	33,2
Uroclepsia	72	23,6	61	19,9
Encopresis	5	1,6	4	1,3
Malnutrition	44	14,4	25	8,1
Hear loss	129	42,3	101	32,9
Vision loss	134	43,9	102	33,2

### Conclusions:

1. Patients who were observed before hospitalization in a specialized geriatric polyclinics had higher scores in emotional role functioning, mental health, vitality scales and lower – in physical role functioning than those who visited municipal polyclinics
2. Hospital treatment increased the quality of life by all scales. The most noticeable changes occurred in emotional role functioning, mental health, physical role functioning, social role functioning and general health perceptions. On retirement from geriatric hospital the most significant changes were found in physical role functioning scale, probably due to the absence of physical work during the hospital treatment.
3. Treatment in a specialized geriatric hospital provides not only formation, but also the long-time stabilization of higher quality of life level in elderly patients with discirculatory encephalopathy
4. Elderly patients in care houses experience such geriatric disadapting syndromes as falls, dizziness, hear and vision loss more often than non-organized.

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