

INFLUENCE OF METHODS OF PHYSICAL REHABILITATION ON QUALITY OF LIFE IN PATIENTS WITH TOXIC HEPATITIS

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Annotation. The purpose was to improve the state of the quality of life in patients with chronic toxic hepatitis in-patient treatment phase by the use of comprehensive program of physical rehabilitation. We examined 84 patients, including 55 - and 29 men - women. Quality of life was measured using a questionnaire SF - 36. The data obtained were compared with those of healthy people - donors. Found that patients significantly reduced quality of life condition. A program of physical rehabilitation with the use of complex tools: physiotherapy, massage, segmental massage, treatment status, respiration system Yoga. On 10 - 15 day in-patient revealed a positive trend against other major symptoms of the disease. At 6 - 7 day disappeared signs asthenia, improved mood, appetite, depression and aggression disappeared, abdominal pain, heaviness in the right upper quadrant. It has also the normalization of the excretory function of the gastrointestinal - intestinal tract. Patients pay attention to the improvement of the symptoms: dyspnea, normalize heart rate, decrease pain and numbness in the legs.

Keywords: toxic hepatitis, quality, life, physical rehabilitation.

Introduction

In present world about 5% of adult population of the earth suffers from chronic hepatitis and there is no trend to reducing of this quantity. Statistic data witness about substantial increasing of toxic hepatitis prevalence. It is conditioned by abusing of alcohol, taking some medicine, influence of small radiation dozes during long time and, in some cases, difficulties of diagnosing, absence of required knowledge about diseases of liver and pharmacology or other medical means, suitable for curing of patients with chronic hepatitis [9-13].

In Ukraine there is no definite statistics, covering structure of chronic hepatitis of different origin, quantity of which, recent years, has been constantly growing. In the structure of chronic hepatitis virus hepatitis – 47%, alcohol hepatitis – 52.4% and affections of liver dominate.

Toxic hepatitis, like most of diseases, influence not only on physical state of patient but also on his (her) behavior, emotions and determine his (her) role in social life, i.e. negatively influence on quality of life.

It is clear that treatment and rehabilitation of this contingent of patients shall be accompanied by limitation of medical liver's loading that determines urgency of development of physical rehabilitation program.

Analysis of recent researches and publications has demonstrated that against the background of unfavorable ecologic situation, abusing of alcohol and medicine morbidity of toxic hepatitis significantly increased (N.V. Kharchenko, 2009).

For determination of patient's self-recognizing of own state we use term "Health-related Quality of life", which is rather widely applied in modern foreign literature. In somatic medicine for determination of life quality the following methodic are often used: scale of Karnovskiy, welfare index of Campbell, Nottingham profile of health, profile of disease's influence, index of general psychic welfare, scale of welfare's quality, TEQV questionnaire (Tableau d'évaluation assistée de qualité de vie). Some questionnaires permit to describe general state of health in the form of profile (SF-36, MHP- Nottingham profile of health, SIP-profile), which, at present time, are used in clinical examinations throughout the world.

Questionnaire SF-36, was developed in 1992, in center of medial results' in USA by doctors E. Ware and Cathy Donald Sherbourne for satisfying minimal psychic standards, which are required for group comparison. [15]. Questionnaire SF-36 was designed for studying of all components of life quality, particularly, connected with health and those, which are not specific for age groups, certain diseases or treatment programs [14].

In works by N.D. Varmiadi, E.B. Vygodner, I.I. Parkhotic there were developed physical rehabilitation principles for patients with dyskinesia of gall tracts, gastric ulcer, gastritis.

However, in spite of the fact that toxic hepatitis is a complex of pathologic changes of not only gastrointestinal tract, but of the whole organism, any scientific works on this subject are absent.

The present work has been fulfilled in compliance with combined plan of scientific & research works in sphere of physical culture and sports for 2006-2010 and topic "Perfection of health related rehabilitation programs of prophylaxis and correction of dysfunctions, conditioned by disorders in different organism's systems" (state registration number 0106U010794).

Purpose, tasks of the work, material and methods

The purpose of the work is increasing of life quality of patients with chronic toxic hepatitis in the course of hospital treatment with the help of physical rehabilitation complex program.

Material and methods. We examined 84 patients, among them – 55 men (65.5%) and 29 women (34.5%). The obtained data were compared with indicators of practically healthy people – donors. Patients were under examination and treatment in therapeutic departments of Kyiv municipal clinic No.2. Depending on application of physical rehabilitation's means, patients were divided into 2 groups: patients of control group (CG), who were treated traditionally with the help of medicaments and patients of main group (MG), who, besides, traditional treatment, applied methods of physical rehabilitation, oriented on renewal of gastrointestinal tract's and hepatobiliar system's functioning.

Toxic hepatitis was diagnosed on the base of medical and instrumental examinations' data, bio-chemical indicators of blood. Clinical picture was characterized y typical symptoms: sickness, general weakness, bitter taste in mouth sense of heaviness in right subcostal area, sometimes dizziness, vomiting, absence of appetite. Clinical symptoms were accompanied by clearly expressed astheno-neurotic syndrome. Most of patients had progressing of accompanying pathology, connected with affection of heart, pancreas, nervous system.

As a tool for estimation of life quality we used Questionnaire SF-36, developed by center of medical results' studying in USA, in 1992, by doctors John E. Ware and Cathy Donald Sherbourne. The questionnaire consists of 36 questions, reflecting main indicators of life quality and united in 8 scales (general health, physical functioning, role physical functioning, emotional-role functioning, social functioning, body pain, vital tonus, mental health). For characterizing of physical condition indicators of physical functioning were used (general health, physical functioning, role physical functioning, body pain). Mental health included social aspects (first of all, place of a patient in family and society) and psycho-emotional status of the patient (mood, calmness, anxiety, depression). Complex of questions included patient's self-estimation of own self-feeling, welfare, satisfaction with life [9].

Complex of exercises and scope of loads was prescribed individually, considering process of disease, age, and presence of accompanying pathology.

In developed by us program of physical rehabilitation we used complex of means, videlicet: therapeutic gymnastics, massage, segment massage with the help of needle applicators, treatment by positions, Yoga breathing, which improves disordered functions of liver of patients with toxic hepatitis in reflexive way. With selecting of physical exercises it was envisaged that they would be oriented not only on improvement of blood and lymph circulation in abdominal cavity and oxidation-recreational processes in hepatices, on increasing detoxificative function of liver and improve but also facilitate decreasing of mental-emotional tension. Complexes of physical exercises included in motion regiment walking in ward and in corridor in combination with dynamic breathing exercises and exercises for abdomen muscles

Results of the researches

At medical examinations of main and control groups' patients on 10th - 15th days of their staying in hospital it was found that both groups had positive dynamics concerning main symptoms of the disease. So, is was stated that already on 6th- 7th day patients of main group had no signs of asthenization, they had better mood, appetite, depression and aggression, pain in abdomen and heaviness in right subcostal area disappeared. Also secretory functions of gastrointestinal tract of patients with chronic hepatitis normalized under influence of offered physical rehabilitation program. Patients attracted attention to improvement of symptoms, which witnessed about accompanying pathologies, - reduction of breathlessness, normalization of heart rhythm, reduction of pain and numbness in legs.

As on the day of going to hospital, life quality indicators of main group patients with chronic toxic hepatitis were the same as those of control group patients (see table 1).

As on 10th-15th day of staying in hospital, indicators of main group patients' general health exceeded 1.43 times ($p < 0.05$) initial data; with it they remained 1.20 times less than indicator of healthy people ($p < 0.05$). Indicators of control group patients increased, for the same period, 1.30 times in respect to initial data but remained less 1.28 times than indicators of healthy people ($p < 0.05$).

Table 1

Dynamics of life quality indicators of patients with chronic toxic hepatitis

Indicators (description)	Groups	Indicators (in points)					
		patients				Healthy people (n=20)	
		1 day		10-15 day		\bar{x}	S_x
		\bar{x}	S_x	\bar{x}	S_x		
Physical functioning (PF)	MG (n=54)	50.08*	1.78	69.44***	2.25	96.51	1.07
	CG (n=30)	49.66*	1.83	52.33***	2.01		
General state of health (GH)	MG (n=54)	49.67*	2.16	71.13***	3.84	85.06	2.28
	CG (n=30)	51.13*	1.97	66.30*	2.64		
Role physical functioning (RP)	MG (n=54)	45.37*	2.27	56.48***	3.57	85.25	2.83
	CG (n=30)	43.33*	2.05	48.33*	2.38		
Emotion role functioning (RE)	MG (n=54)	39.33*	2.40	62.41***	3.35	80.17	1.86
	CG (n=30)	37.63*	2.73	48.90***	3.09		
	CG (n=30)	34.66*	2.95	57.33***	3.21		
Social functioning (SF)	MG (n=54)	37.65*	3.04	51.17***	4.02	79.21	1.60
	CG (n=30)	35.92*	3.28	42.08*	3.52		
Body pain (BP)	MG (n=54)	52.41*	3.03	68.85***	2.33	82.25	2.24
	CG (n=30)	54.20*	2.35	59.93***	2.02		
Vital tonus (VT)	MG (n=54)	43.79*	2.34	58.24***	2.12	84.41	2.30
	CG (n=30)	44.66*	3.19	51.33***	2.37		
Mental health (MH)	MG (n=54)	35.33*	2.56	62.07***	2.73	74.23	1.97

Notes: * - differences are statistically confident in respect to healthy people with

$p < 0.05$;

** - differences are statistically confident in respect to initial indicators, with $p < 0.05$;

*** - differences are statistically confident in respect to indicators of control group, with $p < 0.05$.

As on 10th – 15th days indicators of main group patients' general health exceeded 1.43 times ($p < 0.05$) initial data; with it they remained 1.20 times less than indicator of healthy people ($p < 0.05$). Indicators of control group patients increased, for the same period, 1.30 times in respect to initial data but remained less 1.28 times than indicators of healthy people ($p < 0.05$). However, it should be noted that comparing with control group's patients indicators of main group patients were 1.07 times better.

Indicators of physical functioning of main group patients increased, in the process of treatment, 1,39 times ($p < 0.05$), at the same time data of control group's patients increased 1.05 times ($p < 0,05$) in respect to initial data. . Thus, indicators of main group's patients increased 1.33 times ($p < 0,05$) in respect to indicators of control group. . However physical activity of patients with CTH (main group) remained 1.39 time lower than indicators of healthy people ($p < 0.05$); indicators of control group were 1.84 times lower ($p < 0.05$).

Indicators of role physical functioning of main group's indicators increased also more intensively and they exceeded initial data 1.24 times ($p < 0.05$), however they remained 1.51 times lower than data of healthy people ($p < 0.05$). For the same period indicators of control group increased 1.12 times. With it, as on 10th-15th day indicators of role physical functioning of main group patients were 1.17 times higher than the data of control group.

During the period of staying in hospital emotional role functioning of main group's patients increased in respect to indicators of the first day 1.59 times ($p < 0.05$), control group's indicators increased for the same period 1,29

times ($p < 0.05$). Comparison of main group's indicators with indicators of control group showed that the first exceeded control group's data 1.28 рази ($p < 0.05$).

Patients of main group also demonstrated more intensive, in comparison with control group, increasing of social functioning indicators. So, as 10th-15th day of main group staying in hospital they increased in respect to initial data 1.36 times ($p < 0.05$) – and control group indicators – 1.17 times ($p < 0.05$). Indicators of main group patients exceeded indicators of control group 1.22 times.

Main group patients evaluated body pain by 52.41 points that was 1.57 times less ($p < 0.05$) that indicators of healthy people; indicators of control group were lower than normal ones 1.52 times ($p < 0.05$). As on 10th-15th days of staying in hospital body pain indicators of main group's patients increased 1.31 times ($p < 0.05$), but remained 1.19 times lower than normal indicators ($p < 0.05$). For the same period indicators of control group's patients increased 1.11 times, remaining 1.37 times less than indicators of healthy people ($p < 0.05$). It should be noted that indicators of main group were 1.15 times higher than indicators of control group ($p < 0.05$).

As on 10th-15th day vital tonus indicators of main group's patients were higher than initial data 1.33 times ($p < 0.05$), the same of control group – 1.15 times ($p < 0.05$), but they did not reach the level of healthy people and differed 1.44 times ($p < 0.05$) at main group and 1.65 times ($p < 0.05$) at control one. So, indicators of main group patients were 1.14 times better ($p < 0.05$) than indicators of control group. Dynamic of mental health indicators of main group patients was also better; as on 10th-15th days of staying in hospital their indicators exceeded the same of control group 1.08 times, with it remaining lower than normal indicators 1.20 times ($p < 0.05$).

Conclusions:

Thus, we proved positive influence of developed by us complex physical rehabilitation program on life quality of patients with chronic toxic hepatitis that is witnessed by confident prevalence of main group indicators over indicators of control group by the following parameters: physical functioning, emotional-role functioning, body pain and vital tonus. So, determination of these parameters can be taken as criterion of effectiveness of the offered by us program of physical rehabilitation of this category's patients.

The prospects of further researches imply studying of physical rehabilitation methods' influence on life quality of this category's patients on further stages of treatment.

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