

HIRUDOTHERAPY OF PATIENTS WHO HAVE SUFFERED AN ISCHEMIC STROKE. CLINICAL EVALUATION

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ABSTRACT

The undoubted urgency of the problem of finding new, effective methods of treating patients with cerebrovascular diseases logically follows from the fact that acute disorders of cerebral circulation are the dominant cause of disability and mortality in Uzbekistan and in the world. In Uzbekistan, according to the registers, more than 60 thousand people suffer a stroke every year. At the same time, disability after stroke is 83.8%, and the percentage of hospital mortality is 17.3%.

Keywords: brain, blood, blood pressure, growth, development.

АННОТАЦИЯ

Несомненная актуальность проблемы поиска новых, эффективных методов лечения больных с цереброваскулярными заболеваниями логически вытекает из того, что острые нарушения мозгового кровообращения являются доминирующей причиной инвалидности и смертности в Узбекистане и в мире. В Узбекистане, по данным регистров, ежегодно более 60 тысяч человек переносят инсульт. При этом инвалидизация после инсульта составляет 83,8%, а процент госпитальной летальности – 17,3%.

Ключевые слова: головной мозг, кровь, артериальное давление, рост, развитие.

INTRODUCTION

A high and multifaceted range of hirudotherapy applications has been proven in clinical practice. It is provided by the content in the saliva of leeches, in addition to hirudin, trypsin and plasmin inhibitors, alphachemotrypsin inhibitors, chemazine, subtilisin and neutral proteases of granulocytes — elastase and cathepsin C, inhibitor of coagulation factor Xa and plasma kallikrein. Highly specific enzymes have also been found in saliva: hyaluronidase, destabilase, apyrase, collagenase, triglyceridase, cholesterol esterase, as well as a number of compounds not yet studied in childbirth, such as leech prostanoids, histamine-like substances and a number of others. There

are a number of clinical confirmations of high efficiency of hirudotherapy in patients with cerebrovascular diseases.

The aim of the study was to conduct a clinical evaluation of the effectiveness of a course of hirudotherapy in patients who have suffered an ischemic stroke (IS).

MATERIALS AND METHODS OF RESEARCH

Conducted an open non-comparative study of the effectiveness of hirudotherapy, focused on the clinical condition of patients. Before and after the course of hirudotherapy, complaints (on a scale of yes or no) were assessed for subjective feelings, and the presence of anxiety and depression according to the generally accepted Tsung and Beck scales.

The group included 23 people, average age — 55.4 ± 9.8 years, men — 11, women — 12. IS of mild or moderate severity in the vertebral basilar in 8 patients, and in the carotid pool in 15, the time after stroke is from 3 months to 2 years. IS confirmed by computed tomography or magnetic resonance imaging of the brain (a focus with a diameter of up to 1.5 cm in the deep structures of the brain hemisphere). Hirudotherapy was performed according to our patented method (RF Patent No. 2327494).

RESULTS

After a course of hirudotherapy, 10 out of 18 patients ($p < 0.05$, χ^2) experienced stabilization of arterial hypertension at acceptable figures for each patient. Cerebral and cardiac symptoms of hypertension were stopped without an increase and with a decrease in dosages (in 11 patients) and the range (in 5 patients) of antihypertensive drugs used. The number of patients complaining of headaches, noises in the head or ears, insomnia and increased fatigue significantly decreased ($p < 0.05$, χ^2). In the neurological status, positive dynamics was noted in 11 of the 17 patients ($p < 0.05$, χ^2) with ataxia symptom complex. Complete restoration of vestibular functions was noted in 5 patients, in 6 — a decrease in the severity of impaired coordination of movements and gait. Full recovery of strength in paretic limbs occurred in 1 patient (4 months passed after the stroke). A decrease in power paresis was noted only 3 out of 9 patients. Our positive results are similar to those (7) who used hirudotherapy in the acute period of IS.

Before the start of therapy, the average score on the anxiety scale was 0.53 ± 0.02 , which corresponded to mild anxiety. After hirudotherapy, there was a decrease in the average score on the Tsung scale by 20.8% ($p < 0.01$ according to the t criterion). A group of patients (13 patients) with an increased level of anxiety index (above 0.50) was singled out separately, in which after a course of hirudotherapy there was a significant ($p < 0.001$) decrease in it by 24.1%.

Initially, when assessing the level of depression in this group of patients, it fit into the framework of the absence of depression or mild depression. After hirudotherapy, this indicator on average in the group significantly decreased by 24,3 %. In a group of patients with mild depression out of 6 people whose depression score on the Beck scale was equal to or higher than 18, after treatment, a highly significant decrease of 42.5% of this indicator was obtained ($p < 0.001$).

After hirudotherapy, patients were asked to independently assess the effect of treatment: significant improvement — 4 people, improvement — 16 patients ($p < 0.05$, χ^2), without change — 3 people, no deterioration was noted by patients. In total, the improvement was noted by patients in 87%.

When assessing the tolerability and safety of the therapy, which or hemorrhagic events during treatment (hemorrhagic ONMC, retinal hemorrhages, gastrointestinal bleeding, hemorrhoids, nasal, uterine bleeding) were not noted.

CONCLUSION

The course of hirudotherapy has a significant positive effect on the complex of complaints in patients who have suffered an ischemic stroke. Positive dynamics in the neurological status was noted. It can be argued that there is a distinct anxiolytic and antidepressant effect of hypotherapy in patients with mild forms of anxiety and depression. It should be noted here that the procedure of setting leeches itself hardly gives any significant positive psychotherapeutic effect, since most patients initially with some disgust and displeasure go to such treatment. Thus, the course of hirudotherapy is a safe, effective additional method of treatment of patients who have suffered an ischemic stroke.

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