

The effectiveness of hirudotherapy in the rehabilitation of patients with acute disorders of cerebral circulation

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Acute disorders of cerebral circulation (ONMK) due to the high prevalence, disability and mortality are one of the most pressing problems of modern medicine. In order to identify the most optimal conservative methods of rehabilitative treatment of small-volume stroke hematomas, we examined 30 patients with stroke and who underwent additional treatment with leeches during the rehabilitation period. As a comparison group, 32 patients with small-volume stroke hematomas were taken, which were treated in accordance with evidence-based medicine algorithms. During the study, which assessed the general condition and neurological status of the patient, as well as constantly monitored blood pressure, we found a noticeable stabilization of vital signs,

Keywords: arterial hypertension, stroke hematoma, hirudotherapy Acute cerebrovascular accident (CVA) because of the high prevalence, morbidity and mortality. In the case of patients with a stroke, he underwent medical examination. If you are a patient, you must be able to follow the patient's health care requirements on the 3th day of hirudotherapy.

Keywords: arterial hypertension, stroke-hematoma, hirudotherapy

Introduction

Intracerebral hemorrhages (IUD) are one of the most common pathologies. Mortality in stroke hematomas remains high and reaches 40% [1 p. 80]. According to studies, it is associated with the degree of depression of consciousness on the Glasgow coma scale, hematoma volume, blood breakthrough into the ventricles of the brain and the age of patients [2 p. 23].

Early diagnosis and treatment of acute disorders of cerebral circulation due to the high prevalence, disability and mortality from stroke is one of the most important medical and social problems of modern society. Although hemorrhagic stroke (GI) is only 15% in the structure of stroke, the severity of development, course and outcome of the disease is the most dramatic of all cerebrovascular processes. The most common form of this group (in 80.8% of cases) is non-traumatic intracerebral hemorrhage (UHMC), characterized by sudden extravasation of blood into the brain parenchyma. UMVC is characterized by a high level of mortality and disability, occurrence at a younger age than with ischemic stroke [3 p.81].

Clinically, small IUDs of the supratentorial localization can occur clinically as a cerebral hypertensive crisis, ischemic stroke or transient ischemic attack, and also have an asymptomatic course [4 p. 21].

Purpose of the study. Evaluation of the effectiveness of hirudotherapy in the prevention and long-term rehabilitation treatment of hemorrhagic stroke.

Material and research methods. From 2014 to 2016 30 patients with small-volume stroke hematomas (control group) aged 44 to 65 years were examined, including 17 men and 13 women admitted to the Andijan branch of the Republican Scientific Center for Emergency Medical Aid in the first 48 hours of onset.

The comparison group consisted of 32 patients aged from 43 to 61 years old, of whom 18 were men and 14 women who were also admitted to the Andijan branch of the Republican Scientific Center for Emergency Medical Aid on the first day after the onset of the disease.

The average score on the Glasgow scale was 13–15 points.

The severity of neurological deficit in patients with small hematomas when entering the group averaged 6 points on the NIH stroke scale, the daily activity activity index on the Bartel scale was 48 points.

The following scales were used to objectify the severity of the existing clinical symptoms and assess the severity of the patient's condition on admission and in dynamics:

1. NIH stroke scale
2. Modified Rankin scale.
3. Frankel conduction disturbance assessment scale.

In addition to the standard clinical examination, each patient was constantly monitored for blood pressure + ECG.

The localization and nature of brain changes diagnosed clinically was clarified by M-ECHO and CT of the brain.

In the analysis of CT and M-ECHO, localization, hematoma volume, degree of displacement of brain structures and other related changes were determined.

When examining 30 patients with small hypertensive intracerebral stroke hematomas of hemispheric localization in half of the patients (50%) they were located in the left hemisphere of the brain, and the rest in the right hemisphere (50%). According to the level of impaired consciousness at admission, patients were distributed as follows: clear consciousness - 1 (8.3%) of the patient, moderate stupor - 3 (25.0%), deep stupor - 5 (41.6%), spoor - 2 (16, 6%), moderate coma - 1 (8.3%). The apoplectic variant of the course was observed in 7 (58.3%) patients. A progressive course with gradual suppression of consciousness and an increase in neurological deficit was observed in 3 (25.0%) patients, in 2 (16.6%) the disease proceeded with the progression of neurological deficit without depression of consciousness

Table 1

Stroke hematoma distribution by location

Localization of VMK	Number of patients
lateral	10 patients (36.7%)
medial	8 patients (23.3%)
mixed	8 patients (30%)
lobar	4 patients

All patients included in the study suffered from arterial hypertension (AH). The duration of hypertension varied from 2 to 30 years.

table 2

The distribution of patients with stroke by the degree of hypertension

Degree of hypertension	The number of patients, % (n = 30)
Grade 1 (140–159 / 90–99 mm Hg)	3 (10%)
Grade 2 (160–179 / 100–109 mm Hg)	12 (40%)
Grade 3 (≥ 180 / ≥ 110 mmHg)	15 (50%)

In the majority of patients (60%), this violation of cerebral circulation was the first. The rest of the patients (40%) received information about the recurrence of cerebrovascular accident. This group included 7 patients with cerebral hypertensive crises, accompanied by elevated blood pressure, headache, dizziness, vomiting, poor general well-being and 4 patients who had a history of cerebral circulation disorder, accompanied by focal neurological symptoms of a different nature.

For the objectification of the severity of existing clinical symptoms and assessment of the severity of hemorrhagic stroke, the National Institute of Health Stroke Scale [NIHSS] scale was used.

In the NIHSS scale with a range of values from 0 to 36 points (the norm is 0 points), the severity of impaired consciousness, higher cortical functions, cranial innervation (dysarthria, paresis of facial muscles), motor, coordinator and sensitive functions is assessed.

The neurological status of patients with small IUDs was observed: motor impairment - in 29 patients, speech disorders - 18 patients (60%), dysarthria in 12 (66.7%), sensitivity disorders - 24 patients (80%), cranial nerve innervation disorders - in 27 patients (90%).

Results and discussion.

In the control group, along with the traditional treatment approach (dehydration, absorbable therapy), hirudotherapy was carried out in a comprehensive manner. Treatment with medical leeches began on day 10-14 of treatment for disorders of cerebral circulation (in 78% of cases - after discharge from the hospital). Conducted a standard course of hirudotherapy (5-7 days). The leeches were

superimposed in the projection of the vertebral and temporal arteries 1-2 times a day. Regarding the comparison group, stabilization of blood pressure and the patient's general condition, as well as a noticeable improvement in the patient's neurological status, were noted already on days 3–4.

Table 3

Assessment of the condition of patients on the Frankel scale on the 3rd day of hirudotherapy

	Control group (3 days of hirudotherapy)	Comparison group (hirudotherapy was not performed)
A	-	3
B	3	6
C	eight	12
D	17	9
E	7	2

Findings.

Small hypertensive supratentorial intracerebral hemorrhages are a special form of cerebral circulation disorders. Small stroke hematomas most often develop in hypertension with a long crisis period and are accompanied by a clinical picture of acute stroke with reversible or persistent neurological disorders. For the speedy rehabilitation and early activation of patients with small intracerebral hemorrhages at the post-hospital stage, it is advisable to treat with medical leeches.

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