Some aspects of homeopathic therapy of acute vascular lesions of the central nervous system, taking into account the data of modern clinical and immunobiochemical studies

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## SUMMARY

The article makes an attempt to substantiate the use of these agents in the treatment of acute disorders of cerebral circulation and their consequences, taking into account the etiopathogenetic mechanisms of the development of this pathology accepted today in official neurology, as well as the author's original views on the immunobiochemical aspects of these mechanisms, based on the characteristics of the pathogenesis of some homeopathic preparations. In conclusion, a clinical case of successful homeopathic treatment of persistent long-term consequences of repeated acute cerebrovascular accidents in a relatively young patient with severe systemic connective tissue damage is presented.

## **ABSTRACTS**

In the article, proceeding from features of pathogeneses of some homeopathic remedies, is done attempt to prove their application in the treatment of sharp infringements of brain blood circulation and consequences of signed pathology in view of the ethiopathogenethic mechanisms, accepted in the modern official neurology, and also original sights of the author on immunobiochemical aspects of these mechanisms. The clinical case of successful homeopathic treatment of the proof remote consequences of repeated sharp infringements of brain blood circulation at rather young patient with heavy system defeat of a connecting fabric is presented.

Diseases of the nervous system are among the most common in daily clinical practice. At the same time, the first place in the overall structure of neurological morbidity and causes of emergencies is firmly held by the pathology of vascular genesis. So, according to the WHO, among the causes of death, 55% are diseases of the circulatory system, and in their structure, in turn, 46.9% falls on the share of coronary heart disease and 37.6% - on the share of cerebrovascular diseases. At the same time, the number of patients referred for hospitalization in Moscow in 2000 with a stroke was twice the number of patients with myocardial infarction. This does not mean that stroke was diagnosed in all of these patients; sometimes, doctors are probably just playing it safe, but nevertheless these figures speak volumes.

According to the views of official medicine, etiopathogenetic factor development of acute cerebral impairment

hypertension and atherosclerosis, while hypertension is treated by therapists, and OHMK - by neuropathologists, which, in our opinion, is incorrect, since it violates the principle of a systemic approach to the body.

It should be remembered that in women, the trigger mechanism for the development of hypertension and stroke is often menopause, which should be taken into account when choosing a homeopathic drug. In this case, you should think about such "climacteric" drugs as Cimicifuga, Conium, Lachesis, Sepia. Important For a homeopath, it is also a circumstance that at the age of over 40 (and acute cerebral accidents are most often the lot of patients in the second half of life), hypertensive crises and stroke more often occur on a full moon. It is appropriate here to recall such drugs as Acidum hydrocyanicum, Alumina, Calcarea, Crocus, Natrium carbonicum, Psorinum, Sulfur.

official Based on the adopted today in neurology etiopathogenetic views, stroke appears as a clinical syndrome of acute vascular brain damage. It is the outcome of various pathological conditions of the circulatory system - blood vessels, heart, blood. At the same time, a variety of etiology and pathogenetic mechanisms of its development have been established (the concept of stroke heterogeneity). So, ischemic strokes have the following subtypes: atherothrombotic - 34% (Ambra grisea, Aurum, Baryta carbonica, Cholesterinum, Lycopodium), cardioembolic - 22% (Arnica, Glonoinum, Lachesis, Naja), lacunar (associated with arterial hypertension) -twenty% (Aconite, Argentum nitricum, Arsenicum album, Baryta carbonica, Lycopodium, Sulfur), hemodynamic - 15% (Cicuta, Colocynthis, Cuprum, Magnesia,),hemorheological microocclusion -9% (Bothrops). Many of thesepathogenetic mechanisms interact with each other. The brain is very sensitive to the overproduction of free radicals, to the so-called oxidative stress, since all the factors that prevent it are in the blood and do not reach neuronal structures under conditions of ischemia. For these reasons, it is oxidative stress, leading to the overproduction of free radicals and destruction of membranes as a result of the activation of phospholipase hydrolysis, that plays a particularly significant role in the pathogenesis of cerebral ischemia. The increased production of free radicals, initiated by arachidonic acid during cerebral ischemia, is one of the reasons for prolonged vasospasm and disruption of cerebral autoregulation, as well as the progression of postischemic edema and swelling due to the disintegration of neurons and damage to membrane pumps. The fastest alternative way to correct hypoxia is succinate oxidase oxidation. Activation of succinate oxidase oxidation is achieved through an increase in the activity of succinate dehydrogenase and an improvement in the penetration of exogenous succinate into the mitochondria of the cell. Thus, the most effective way to correct hypoxic disorders in the body is the complex activation of the respiratory chain: activation of alternative succinate oxidase oxidation, stimulation of NADdependent oxidation and suppression of radical processes in the cell. Under conditions of hypoxia, with a sharp decrease in the activity of NAD-dependent enzymes of the Krebs cycle, Activation of succinate oxidase oxidation is achieved through an increase in the activity of succinate dehydrogenase and an improvement in the penetration of exogenous succinate into the mitochondria of the cell. Thus, the most effective way to correct hypoxic disorders in the body is the complex activation of the respiratory chain: activation of alternative succinate oxidase oxidation, stimulation of NAD-dependent oxidation and suppression of radical processes in the cell. Under conditions of hypoxia, with a sharp decrease in the activity of NAD-dependent enzymes of the Krebs cycle, Activation of succinate oxidase oxidation is achieved through an increase in the activity of succinate dehydrogenase and an improvement in the penetration of exogenous succinate into the mitochondria of the cell. Thus, the most effective way to correct hypoxic disorders in the body is the complex activation of the respiratory chain: activation of alternative succinate oxidase oxidation, stimulation of NAD-dependent oxidation and suppression of radical processes in the cell. Under conditions of hypoxia, with a sharp decrease in the activity of NAD-dependent enzymes of the Krebs cycle,

the need to activate alternative NAD-metabolic flows and, first of all, the succinate dehydrogenase (SDH) shunt oxidizing succinic acid.

The antioxidant and nootropic action of succinic acid is well known in official medicine. Succinic acid contained in organs and tissues is a product of the fifth reaction and a substrate of the sixth reaction of the tricarboxylic acid cycle. Performing a catalytic function in relation to the Krebs cycle, succinic acid reduces in the blood the concentration of other products of this cycle - lactate, pyruvate and citrate, which accumulate in the early stages of hypoxia. The antioxidant effect of succinic acid is due to its effect on the transport of mediator amino acids, as well as an increase in the content of q-aminobutyric acid in the brain due to the activation of the q-aminobutyrate shunt (Roberts cycle). Succinic acid in the body as a whole normalizes the content of histamine and serotonin and increases microcirculation in organs and tissues, primarily in the brain, without affecting blood pressure and heart performance. The anti-ischemic effect of succinic acid is associated not only with the activation of succinate dehydrogenase oxidation, but also with the restoration of the activity of the key redox enzyme of the respiratory mitochondrial chain - cytochrome oxidase. Thus, in addition to the traditionally used "vascular", "paralytic", "bleeding" and "comatose" drugs, the use of Acidum succinicum in acute vascular pathology of the central nervous systemalso absolutely justified.

There are two main principle stroke prevention - population strategy (lifestyle, diet) and target strategy (treatment in risk groups); their combination is also possible. The role of non-drug factors cannot be underestimated: according to the US National Heart, Lung and Blood Institute, limiting salt intake to 1.5 g per day reduces systolic and diastolic blood pressure by 5 and 3 mm Hg. Art. respectively, and the incidence of stroke - by about 30% (Natrium muriaticum and all Natrium).

For the treatment of hypertensive-hydrocephalic syndrome in severe cases of ischemic stroke in the acute period, one should first of all think about Apis and Natrium sulfuricum, a with hemorrhagic stroke - about Aconite napellus, Arnica, Chenopodium, Elaps corralinus and other bleeding drugs.

It is well known that anticoagulant therapy is widely used in the complex therapy of ischemic strokes, in particular, acetylsalicylic acid preparations (Thrombo-ACC), as well as preductal, but it is no secret that taking acetylsalicylic acid (all the more prolonged) is fraught with the development of a large number of complications (changes in the blood picture, ulcerative lesions of the gastrointestinal tract, etc.); you should consider using a homeopathic Ac. salicylicum with a stroke - more often vertebrobasilar localization of the focus or left-sided hemiparesis, as well as in patients with anamnestic indication of prolonged use of salicylates.

Despite the vascular theory of the pathogenesis of strokes accepted in official neurology, experimental and clinical observations are known, which cannot be explained from the standpoint of this theory at present. So, according to British researchers who worked in the early 80s

years on an experimental model of ischemic stroke (unilateral ligation of branches a. carotis int. in a rabbit), endolumbar administration of cerebrospinal fluidthe experimental animal intact led to the immediate development of homolateral pyramidal symptoms, which allowed the authors to assume the existence of a certain chemical carrier of information, but its nature remained unclear. Several years later, Academician N.P. Bekhtereva repeated similar studies with an experimental model of acute closed craniocerebral trauma (brain contusion) - the results of these experiments were identical to those in Britain, but still no conclusions were drawn about the origin and biochemical nature of the humoral transfer factor.

On the other hand, the daily clinical practice of a neuropathologist is replete with examples of obvious clinical and anatomical dissociation between the severity of the condition, the severity of cerebral and focal neurological symptoms, and the dimensions of the stroke focus found on the section.

1988-1990 in the clinic of the Department of Neurology of the FSUV of the 2nd MOLGMI named after N.I. Pirogova (Head - Prof. A.I. Fedin) Senior Researcher S.A. Rumyantseva et al. a number of interesting studies have been carried out on the clinical application of methods of extracorporeal blood purification (hemosorption and plasmapheresis) in the treatment and rehabilitation of long-term persistent residual effects of acute cerebrovascular accidents with a prescription of up to 3-5 years. At the same time, after 3-10 procedures, it was possible in 75-80% of cases to achieve a significant decrease in the severity, and sometimes complete regression of neurological symptoms. The method was recommended for clinical use, but this time no satisfactory explanation for this phenomenon was proposed either.

In classical immunology, a number of chemical compounds have long been known that do not exhibit antigenic properties in their pure form, but possess the ability to bind to proteins of cell membranes and acquire all the features characteristic of antigens; Such substances are called haptens and are actively used in experimental immunology for the production of specific antibodies and sensitized immunocompetent cells to tissues that are not antigens under normal conditions. One of the compounds most commonly used as a hapten is dinitrochlorobenzene (DNCB).

It is also known that most of the short-chain polypeptides discovered in the last 2-3 decades, produced in the central nervous system and collectively called neuropeptides (these include, in particular, endorphins and enkephalins), have specific receptors on the membranes of neurons [1].

In light of the above, in 1990, we made the assumption that under the influence of various factors (increased blood pressure, vasospasm, etc.), some neuropeptides (most likely of the endorphin group) can, by binding to receptors of neuronal membranes in rather topically limited areas of the cerebral cortex. the brain, cause their local inhibition (the state of parabiosis according to N.E. Vvedensky) without anatomical and physiological damage. This mechanism

can be considered as a variant of the body's defense reaction. Clinically, this will be manifested by the development of focal neurological symptoms, i.e. create a typical picture of stroke, however, without the development of severe cerebral edema.

At the second stage of pathogenesis, neuropeptide molecules bound to receptors act <u>already as haptens</u>, thus initiating an autoimmune reaction of the type of hypersensitivity of the immediate or delayed type with the development of a severe cerebral clinical picture.

This hypothesis, in contrast to the theory of the onset and development of ACVA, which is currently accepted in the official neuroscience and proposed by Acad. N.K. Bogolepov, fully explained all the clinical and experimental "oddities" that were mentioned above, however, naturally, she needed a complex experimental immunobiochemical and clinical confirmation, which for reasons beyond the author's control was never carried out.

In 1995-2001. prof. H. Heine (Institute of Antihomotoxic Medicine, Baden-Baden, Germany) in the study of the mechanism of anti-inflammatory analgesic action of complex antihomotanid drugs from the company "Heel" revealed the induction of an immune response by short-chain (5 to 15 amino acid residues) fragments of peptide molecules when they are associated with cell membranes. This phenomenon was named "auxiliary immunological reaction" (Bystander Immunoreaktion) [7-10], and in 1997 the author was issued a certificate of discovery by the German Patent Office. Thus, the immunobiochemical hypothesis of the development of stroke can be considered partially confirmed, which, naturally, on the one hand, should prompt neuropathologists to further research in this area, and, on the other hand, to reconsider the therapeutic approaches to the treatment of this severe disabling pathology. In homeopathic practice, in our opinion, one should think about a significant expansion of indications for the use of "narcotic" homeopathic preparations (Agaricus muscarius, Artemisia absinthium, Anhalonium, Cannabis indica et sativa, Opium) in cases of acute vascular diseases of the central nervous system.

Thus, understanding the etiopathogenetic mechanisms of stroke development in the light of the results of recent studies, a homeopathic doctor can significantly expand the arsenal of drugs used in the treatment of this formidable pathology, including in the acute period.

In conclusion, let us consider the case of successful homeopathic treatment of persistent residual effects of repeated stroke in a relatively young patient with severe systemic connective tissue damage.

Patient Boris I., born in 1959, under observation since May 2000 with a diagnosis of Persistent residual effects of repeated acute cerebrovascular accidents in the basin of the left middle cerebral artery by ischemic type from 11.1999 and 02.2000, Obliterating atherosclerosis of the lower extremities.

At the initial examination, he complained of pronounced weakness of the right

extremities, periodic headaches of a pressing nature in the frontal region without clear lateralization, blurred speech, pronounced general weakness, decreased mood background.

From the anamnesis: For a number of years suffers from obliterating atherosclerosislower extremities, was repeatedly examined and treated inpatiently; according to rheovasography of the lower extremities, decreased blood flow along a. poplitea on the left by 42%, on the right - by 28%, along a. dorsalis pedis on the left by 38%, on the right by 20%. 11/12/1999 suddenly at home weakness developed in the right limbs, speech impairment, the patient fell; The ambulance team was hospitalized in the neurological department of the Moscow City Clinical Hospital No. 15, where the CTG revealed an ischemic focus of the left parietal region, according to the ultrasound scan data - a pronounced occlusion a. carotis int. on the left up to 80%, in the biochemical analysis of blood, a pronounced increase in cholesterol level was noted. Against the background of vascular, anticoagulant therapy, it was possible to achieve a partial regression of pyramidal symptoms, complete restoration of speech. Disability group I was established at the time of discharge.

02/05/2000 - repeated episode of increasing weakness of the right limbs and speech disorders; the patient was again admitted to the neurological department of the City Clinical Hospital No. 15. Despite the intensive vascular therapy, only a slight clinical improvement was achieved, he was discharged under the supervision of a neuropathologist at the polyclinic at his place of residence.

Life history: In childhood, frequent tonsillitis, tonsillectomy in 16 years old, appendectomy at 22 years old.

Family history: Father does not remember, on the maternal side there are many oncopathology in the family, the mother died at the age of 57 from a stroke.

Mind: A hockey coach by profession, soft by nature, anxious, sympathetic, sentimental, pessimist.

Addictions and Modalities: Very chilly, has a pronounced sense of change weather, worse in damp, cold, rainy, windy weather, does not tolerate drafts, better in warm weather, but prefers cold drinks. There are no pronounced food addictions.

On examination: The condition is closer to moderate, severe mental depression, hypochondria, a dull voice, sometimes crying when talking, slightly increased nutrition, the skin is dry, pale, the lymph nodes are not enlarged, constantly clears the throat, the mucous membrane of the pharynx is pale, the tonsils are absent. In the lungs, vesicular breathing, no wheezing, NPV up to 12 / min., HRC = PS = 72 / min., BP = 110/70 mm Hg. Art., heart sounds are rhythmic, muffled; the abdomen is soft, painless in all parts, the liver and spleen are not enlarged. Extremities are cold to the touch, palpation pronounced weakening of pulsation on a. poplitea et a. dorsaiis pedis on both sides, more on the right, markedly weakened pulsation on a. carotis. communis on the left. There are no meningeal symptoms in the neurological status, central paresis VII, XII pairs of CNs on the right, pharyngeal reflexes are symmetrically reduced, speech with elements of dysarthria,

Treatment prescribed: Causticum 200CH 5 globules in the morning on an empty stomach daily for 5 doses, then 5 globules in the morning on an empty stomach 2 times a week. The patient was admitted for treatment with IRT (craniopuncture) in combination with passive-active exercise therapy of the right extremities.

Against the background of treatment, the patient's condition improved significantly, became more cheerful, began to joke, the chilliness decreased, the speech became more vivid, the headaches disappeared; Over the next 5 months, an increase in the strength of the right extremities was noted up to 2-2.5 points in the hand, 3.5-4 points in the leg, the patient began to walk independently around the apartment with a stick, go out into the street with outside help.

Subsequently, for the period 2000-2001. the patient 5 times had episodes of transient ischemic attacks by the type of decompensation of the old focus with the development of total sensorimotor aphasia, which were stopped by the appointment of Causticum 200CH in solution for 15-20 minutes.

In September 2001, the patient stopped treatment due to planned hospitalization in a neurological hospital for re-examination of VTEC. On October 13, 2001, during his stay in the neurological department, the patient developed a repeated episode of left hemispheric ACVA, as a result of which on October 17, 2001, with increasing symptoms of cerebral edema, the patient died.

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