



Hirudotherapy of Migraines - Diseases of Unknown Etiology

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Abstract: Headache is one of the most common complaints of patients at a neurologist's appointment. Of all forms of cephalgia, chronic tension headache is the most common (35-64% of cases). Its second name is stress or psychogenic cephalgia, which develops against the background of anxiety-depressive experiences.

Migraine attacks and other headaches can be easily removed with the help of leeches, and a series of hirudotherapy sessions will allow you to forget about migraines altogether.

Key words: migraine, hirudotherapy sessions, medicine, headache, patient.

Also, the basis of chronic tension pain is the musculotonic component (tension of the muscles of the scalp, masticatory muscles and muscles of the posterolateral surface of the neck). Headache develops against the background of an imbalance of nociceptive and antinociceptive systems. Nociceptive impulses, activating α - and γ -motor neurons of the anterior horns of the spinal cord, causes spasm of muscles innervated by this segment, which leads to irritation of nociceptive receptors in the muscle itself and local ischemia, ultimately to the formation of a stable pathological condition in the form of a "vicious circle": pain – muscle spasm – pain. In the clinical picture of chronic tension headache, there is no clear localization of pain, while the maximum pain falls on the parietal or occipital areas.

Chronic headache occurs at a later age (30-40 years), it is more often bilateral, which helps in differential diagnosis with migraine. The pain has the character of constant pressure, which increases with movements of the head or neck, coughing, sneezing, straining. It occurs more often in the morning (after a long fixed position of the head in a dream), lasts for several hours, sometimes for days, is accompanied by paresthesia in the hands, in the vast majority of cases is accompanied by anxiety-depressive syndrome. Diagnosis of chronic headache presents certain difficulties, and patients are often treated for suspected organic diseases of the central nervous system (arachnoiditis, the effects of trauma or neuroinfection, intracranial hypertension, etc.). It is difficult to differentiate chronic headache with vertebrogenic headache, which is based on degenerative-dystrophic changes of the cervical spine. With it, the substrate of pain is compression and/or irritation of sensitive nerve roots and plexuses, sympathetic nerves, followed by reflex tension of the neck and occipital muscles, extending to other muscles of the soft integuments of the head.

Psychodiagnostics are necessary for successful therapy of chronic headache. It is known that analgesics are ineffective in depressive syndrome, and tranquilizers worsen depression and cephalgia. Such headaches most often do not respond to treatment not only with nonsteroidal anti-inflammatory

drugs, caffeine and its analogues (euphyllin), but also with narcotic analgesics. Moreover, the majority of patients who have been taking analgesics for a long time and in large doses have abusive (medicinal) headaches and treatment comes to a standstill.

Headaches can have a lot of reasons. But the most common of them is excitement and emotional overstrain. The disease is called tension headache. It usually appears in people with high levels of anxiety, during depression and stress.

Migraine is a special type of headache that affects almost a third of the world's population. Young women are more often ill, sometimes children. Migraine is characterized by severe headache in any one half or part of the head: either the entire left side, or the right, or the back of the head hurts. Often the pain is concentrated in the temples and forehead. Seizures are pulsating and occur suddenly. Moreover, they can last quite a long time – 2-3 days. Sometimes migraine attacks are accompanied by nausea and increase with physical exertion, from bright lights and loud sounds. After the attack comes a period of lethargy and drowsiness. Migraine attacks and other headaches can be easily removed with the help of leeches, and a series of hirudotherapy sessions will allow you to forget about migraines altogether.

In chronic cerebral circulatory insufficiency, hypoxia of the brain stem with a change in the ascending influences of the reticular formation, as well as dysfunction of the hypothalamic-limbic-reticular complex lies in the genesis of disorders of the psycho-emotional sphere [6]. In the available literature, there is no mention of the effect of hirudotherapy on the dysfunction of the hypothalamic-limbic-reticular complex. It is possible that the universal antihypoxic mechanism of action has a positive effect on its work and reduces violations of the psycho-emotional sphere in this contingent of patients, which we have observed in practice. The history of the use of hirudotherapy for the treatment of headaches has more than one century. So, the first doctor who investigated the effectiveness of hirudotherapy for concussions of the brain was the legendary military field surgeon N.I. Pirogov.

There is evidence of pathogenetic effects of hirudotherapy. At the time of blood sucking, the secret of leech saliva and the mechanical effect of peristaltic contractions of leeches cause a certain relaxation of muscles, improve regional microcirculation of dystrophic tissues and effectively remove mechanical pressure on vascular-neural formation. An increase in the content of endogenous endorphin and a decrease in the activity of bradykinin, which stimulates pain under the influence of salivary gland secretion of a medical leech, were found.

Taking into account the above pathogenetic mechanisms of hirudotherapy, its use in an integrated approach to the treatment of this pathology was justified. Therefore, the aim of the study was to evaluate the effect of a course of hirudotherapy on the presence and severity of headaches and depressive experiences in patients with chronic vertebral–basilar insufficiency.

To relieve the attack, it is recommended to put 2-3 leeches on the back of the head or behind the ears. Leech saliva has a mild analgesic effect that will relieve pain. However, one session of hirudotherapy should not be limited.

The first course of treatment consists of 5 procedures. Put 3-4 leeches on full exposure, that is, until they are naturally saturated with blood. Remember that blood cannot be stopped during the day. The bleeding will stop by itself. It is only necessary to apply a light, non-pressing bandage to the wounds.

Usually, from the very first sessions, patients feel relieved. The second course of treatment is carried out two weeks after the first. It consists of 7 sessions, 3-4 leeches also "work" on each of them. At least five days should pass between sessions. Do not force the treatment process. Only gradual exposure to biologically active substances contained in leech saliva will lead to lasting positive results.

An important factor contributing to the success of treatment is the achievement of a sense of control over the headache: the pain can be intensified by anxiety that engulfs the patient in anticipation of a new attack, and a feeling of helplessness that occurs if the patient does not know how to cope with the attack. In the case when it is impossible to prevent the influence of a trigger or provoking situation, or when the patient fails to follow the doctor's recommendations, it is important to teach him what to do if the development of a headache is inevitable.

First of all, it is necessary to help the patient learn to distinguish the onset of migraine. Many patients (usually with many years of migraine experience) unmistakably distinguish migraine from other types of headache. For the rest, the doctor's explanations about the features of migraine attacks (the presence of precursors, aura, impaired concentration, nausea, etc.) will be very valuable. In this case, the patient's education is of direct importance in the choice of medicines for relieving the attack. If a migraine of moderate or severe intensity is expected, then the best remedy in this situation is likely to be a drug from the group. If a mild headache is expected to develop or the patient feels that in this case he develops an episode of tension headache, then in this situation it is advisable to use a conventional analgesic or a drug from the group of nonsteroidal anti-inflammatory drugs.

It is important to choose a drug in advance to stop an attack, taking into account the previous experience of using drugs (efficacy, presence of adverse reactions), the preferences and expectations of the patient, the severity of the alleged attack. The tactic of "waiting" is currently recognized as incorrect. Migraine attacks can last up to 72 hours, and the more time passes since the onset of the first symptoms of migraine, the worse the response to treatment. If you take the medicine as early as possible after the first signs of migraine appear, it is often possible to completely prevent or significantly reduce the intensity and duration of headache and return to social or work activity faster.

In patients with non-severe forms of depression, it can be argued that there is a distinct, statistically significant antidepressant effect of hirudotherapy (table). It should be noted here that the procedure of setting leeches itself hardly gives any significant positive psychotherapeutic effect, since most patients initially go to such treatment with some disgust and displeasure.

When assessing the tolerability and safety of hirudotherapy, no hemorrhagic events (hemorrhagic ONMC, retinal hemorrhages, gastrointestinal bleeding, hemorrhoids, nasal, uterine bleeding) were noted. Treatment was not interrupted in any of the cases, i.e. there were no significant side effects (allergic reactions, decreased hemoglobin levels, etc.). There were no precedents of infection of a leech wound, which confirms the known facts about the antiseptic effect of saliva of a medical leech.

Thus, despite the wide representation and severity of psychoemotional disorders in patients with cerebrovascular diseases, no attention is paid to them in complex therapy, and therefore a positive result is often not observed. Hirudotherapy has a muscle relaxant effect, improves microcirculation and reduces hypoxia of tense muscles, thereby breaking the "vicious circle" of headache, has a pronounced antidepressant effect and can be one of the additional methods of treating patients with chronic headaches and depressive experiences. The safety and good portability of the method are shown.

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