

## APITHERAPY IN NEUROLOGY

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**Resume:** The article discusses the use of various bee products in diseases of the nervous system. The characteristics of bee products are given, methods of their use for preventive and curative purposes are described.

**Keywords:** Bee products, treatment, prevention, initial stages of chronic cerebral ischemia.

Interest in bee products is growing like an avalanche, since their therapeutic, preventive and strengthening effects clearly exceed those of many synthetic drugs. Honey, wax, pollen, parchment, royal jelly, propolis, bee venom, drone brood are products that are designed by nature to preserve and prolong the life of bees, and can also be successfully used by humans. Many plant nutrients and active substances combine well with biologically active substances produced by the bee's body. They are part of bee products and have a specific and non-specific effect on the human body when used, because they have therapeutic, preventive and strengthening effects [1-5].

Bee products have been known for a long time. According to ancient sources, the medicinal properties of honey and propolis were well known in India already 5-7 thousand years ago. In ancient China, honey was not only used as a medicine for a number of diseases, but also successfully treated with bee stings. The ancient Egyptians treated inflammation of the eyes with honey, as well as wounds, burns, and ulcers.

Honey has long been valued as a food product, as a raw material for the preparation of intoxicating drinks and as a valuable medicinal product. There are hundreds of recipes for using honey in Uzbek folk medicine. The fact is that all bee products — honey, wax, propolis, pollen, royal jelly — are biologically active substances that act as biogenic stimulants and have valuable medicinal properties. Bee products increase efficiency and endurance, are indispensable in extreme conditions, strengthen the immune system the system. Honey compositions with other biologically active bee products have the greatest effect. In many countries, bee products have taken a strong place in the medical industry, cosmetology, and dietary nutrition.

According to the method of production, honey is divided into cellular (at least 2/3 of honey must be sealed), centrifuged and pressed. The chemical composition of honey is complex and diverse. It contains more than 300 substances, of which the most important are: carbohydrates, organic acids and their salts, nitrogenous compounds (amino acids), proteins, amines, minerals, vitamins, hormones, enzymes, higher alcohols, essential oils, coloring substances, terpenoids, sterols, phosphatides, etc. Honey carbohydrates, especially fructose and glucose, are easily and quickly absorbed in the body. They represent a valuable energy material. Honey contains more than 20 amino acids, including all essential ones, as well as more than 15 enzymes that catalyze redox, hydrolytic and other processes. In small quantities, honey contains organic acids — malic, lactic, gluconic, citric, amber, tartaric, oxalic, malonic, and sometimes formic. Honey contains phenolic compounds that increase the strength and elasticity of the walls of blood vessels, they promote the absorption of ascorbic acid in the body, have anti-inflammatory and anti-sclerotic effects.

Honey is a very valuable food product. It does not stay long in the stomach, quickly penetrates into the intestines and is absorbed into the lymphatic system, and from there into the blood and tissues. Due to the presence of essential oils and resinous substances, honey has a slight stimulating effect on the body, especially on the circulatory and nervous systems. Therefore, it is extremely useful for people who are physically and mentally tired and weakened, as well as recovering from severe

debilitating diseases. As a source of carbohydrates, honey is one of the first places among food products.

Honey is best taken 1.5–2 hours before a meal or 3 hours after it. It is most useful to use honey with warm boiled water (in equal doses), as well as with tea, milk, i.e. diluted. Using honey for nutrition, we must try to ensure that its naturalness is preserved, avoiding heating above 50-60 ° C.

Observations and special laboratory studies have established that honey has bactericidal properties. From everyday practice it is known that honey stored in an open container, as a rule, does not spoil, does not mold and does not rot. This indicates that it is a product in which bacterial and fungal spores that enter it from the air cannot develop. The reasons for the bactericidal nature of honey:

- 1) high sugar content (about 80%);
- 2) acid reaction, organic acids have been found in honey, which prevent the reproduction of bacteria.

Honey enriches the human body with a wide variety of nutrients necessary for health (vitamins, proteins, carbohydrates, etc.). Currently, honey is recommended for diseases of the hematopoietic organs and the cardiovascular system, liver diseases, skin diseases, etc. It is also used for gastritis, peptic ulcer of the stomach and duodenum and for the treatment of wounds; honey is very useful for patients who have suffered serious illnesses or operations, and especially for the child's body [6].

To achieve an antibacterial and anti-inflammatory effect, honey should be taken in small portions (one teaspoon each), delaying it during keep your mouth shut as long as possible. For example, for diseases of the upper respiratory tract, it is recommended to keep honey in your mouth at least 6 times a day. With this method of administration, antibacterial substances are absorbed by the mucous membrane of the mouth and throat, as a result of which the pathogenic flora is significantly reduced, whereas quickly swallowed honey does not have such an effect. The most convenient in this case is candied crystallized honey.

It is impractical to take more than 200 g of honey per day, and with prolonged use it is even harmful. When dosing honey, greater accuracy is required, such as when dosing other medications, since if you do not determine the amount of honey, you may not achieve the desired therapeutic result. Medicinal drinks can be made from honey. Their advantage is that they have a direct stimulating effect without causing fatigue, toxic or other negative reactions. According to the composition and effect, honey medical drinks can be divided into stimulating, strengthening, appetite-inducing, soothing and expectorant.

Honey as a soothing and mild hypnotic has been used in folk medicine since ancient times. Bee honey is a good remedy for the treatment of nervous diseases, as well as for neuropsychiatric overloads associated with life in big cities. A glass of water in which one teaspoon of honey is dissolved, drunk by a nervous patient at night, often provides him with a restful sleep.

Recipe No. 1 for increased nervous excitability Prepare the mixture: tincture of valerian 10 ml, tincture of hawthorn 10 ml. Take 25 drops 2-3 times a day with increased nervous excitability, accompanied by pain in the heart and palpitations. Separately, use 1 teaspoon of honey. A good therapeutic effect of medical treatment is achieved with neurasthenia and hysteria.

Recipe No. 2 for increased nervous excitability You should take 100-120 g of natural honey per day: 30 g in the morning and evening and 40-60 g after lunch. 30 minutes before bedtime, honey is diluted in 1 cup of water at room temperature. Already in the first half of treatment, that is, after 1-2 weeks, patients get a good sound sleep, a feeling of cheerfulness in the morning, and work efficiency increases.

Recipe No. 3: a restorative balm for increased fatigue Take 500 g of aloe leaves, 100 g of St. John's wort grass, 500 g May honey and 0.5 liters of white grape wine. Pour 0.5 liters of boiling water over the crushed St. John's wort herb, insist in a thermos for 0.5–1 hour and strain. Pass the prepared aloe leaves through a meat grinder. Combine all the components of the balm, mix well, pour into a dark glass bottle, close with a cork and put in a cool place for 6-10 days. Take 1 teaspoon every hour for the first 5 days, then 1 tablespoon every 3 hours. The course of treatment is 1 month. After a 10-day break, it can be repeated.

Honey massage came to us from ancient Tibet and belongs to a kind of reflexology. It is based on the interaction of the skin and biologically active substances contained in honey, and also includes standard mechanisms of action of different types of massage.

Indications for honey massage:

- 1) vertebrogenic pathology;
- 2) osteochondrosis of the spine;
- 3) myositis;
- 4) restoration of athletic fitness after heavy physical exertion;
- 5) Skin care.

Contraindications to honey massage: allergy to honey and hemophilia.

Honey massage, like any other type of massage, with the right choice of its techniques and the method of their application, with the right dosage, has a beneficial effect on the entire body. The massage is accompanied by a pleasant feeling of warmth throughout the body, an improvement in the general well-being of the massaged, an increase in his vitality. Thanks to this type of massage, it is possible to increase or decrease the general nervous excitability, activate almost lost reflexes, significantly improve tissue trophism, the activity of many internal organs, as well as the functioning of the conductive pathways, strengthen reflex connections of muscles, internal organs, blood vessels with the cerebral cortex. The effect of massage on the skin is as follows:

1. Irritation is transmitted through the skin to the central nervous system, which determines the response of the body and its individual organs.
2. Massage helps to remove obsolete horny cells of the epidermis from the skin surface, which, in turn, improves the functioning of the sebaceous and sweat glands.
3. During the massage, the blood supply to the skin improves and venous congestion is eliminated.
4. The temperature of the massaged area increases, and this means that metabolic and enzymatic processes are accelerated.

The massaged skin becomes pink and elastic due to increased blood supply. Its resistance to mechanical and thermal influences increases. Stroking accelerates the movement of lymph in the lymphatic vessels and eliminates congestion in the veins. These processes occur not only in the vessels located on the massaged area, but also in those located nearby. This suction effect of the massage is explained by a decrease in pressure in the massaged vessels. By increasing skin and muscle tone, massage affects the appearance of the skin, making it smooth and elastic. The acceleration of metabolism in skin tissues has a positive effect on the overall metabolism in the body.

The effect of massage on the nervous system. The body's response to external irritation through the nervous system is called a reflex. Massage has a reflex effect on the peripheral and central nervous system. When massaging the skin, the nervous system is the first to react to mechanical irritation.

At the same time, a whole stream of impulses is sent to the central nervous system from numerous nerve-terminal organs that perceive pressure, tactile and various temperature irritations. In addition, massage techniques help to reduce pain sensitivity, improve nerve excitability and conduction of nerve impulses along the nerve. If you massage regularly for a long time, then it can acquire the character of a conditioned reflex stimulus. Among the existing massage techniques, vibration (especially mechanical) has the most pronounced reflex effect.

Honey massage significantly improves blood circulation in the deep layers of the skin and underlying muscles, which helps to improve the nutrition of the internal organs and tissues. Honey, giving biologically active substances, adsorbs toxins and promotes their rapid elimination from the body, such a massage is performed to increase lymph outflow and cleanse the skin. After it is performed, the subcutaneous seals are smoothed, the skin becomes silky and elastic.

The honey massage course is designed for 15 sessions held every other day. It is very important that the massage is not performed every day, but every other day.

Propolis (bee glue, resin, resin) is a natural combination of biologically active compounds of plant and animal origin. Collecting resinous secretions to produce bee glue is a property of the honey bee. It manifests itself at a certain time — in late summer or autumn.

It is widely used orally (in tablets, in the form of tinctures, alcohol extracts, aqueous solution, propolis honey and oil, as well as in native form). Candles with propolis, vaginal balls, drugs intended for injection, aerosol use, douching, etc. are available.

Propolis has analgesic, antimicrobial and antibiotic effects, antiviral effect, destroys toxins, participates in metabolic and enzymatic processes [12, 13]. The composition of propolis It includes substances from the group of aromatic aldehydes, aromatic acids, flavones and flavonoids. Propolis also contains substances found in wax and pollen.

#### Recipe No. 1 for the use of propolis in vertebrogenicathology

Roll out natural propolis in the form of a thin flat cake of large diameter, cut off a plate from it of the required size and, having applied it to the pain (trigger) zone, seal it with a piece of adhesive plaster — larger in area than a propolis plate. It is most advisable to keep propolis on the painful area for 1-2 days. The procedure is carried out with a break of 12-14 hours until the pain disappears completely.

#### Recipe No. 2 for the use of propolis in vertebrogenic pathology

Prepare a mixture of honey, sunflower oil and propolis-infused wine alcohol, taken in equal proportions (one tablespoon each); apply the resulting mass thickly to mustard plasters and apply to the sore spot, slightly securing with a bandage.

#### Bee venom

The most interesting of all the products of the vital activity of the honey bee is bee venom — apitoxin (from Latin. api — bee, toxin — poison). Bee venom is an ancient folk remedy. It is a product of the secretory activity of special glands in the body of a worker bee. When stung, the bee thrusts the tip of the sting into the skin with a blow of the abdomen. Rhythmically contracting, the musculature of the sting pushes it deeper and deeper into the skin, while simultaneously pumping venom through the sting channel into the wound. When a bee tries to fly away, its stinging apparatus together with the

reservoir of poison, the venom gland and the last node of the abdominal nervous chain breaks off from the abdomen and remains in the skin, and the muscles of the sting continue to contract, and the poison is pumped into the body until the reservoir is completely emptied (from 0.2 to 0.3 mg).

Bee venom is a powerful catalyst for almost all physiological processes of the body, attacking the source of the disease directly. With a bee sting, a small dose of a rather complex chemical composition (50 different substances) of bee venom enters the body. It contains minerals (phosphorus, calcium, magnesium, copper), acids (hydrochloric, formic, phosphoric), fats and sterols, proteins and amino acids, carbohydrates (glucose, fructose), as well as acetylcholine and histamine. However, the main task in the treatment of bee stinging is assigned to peptides — compounds consisting of residues of one or more amino acids. The peptide melitin relieves inflammation and kills various pathogenic bacteria. Adolapine analgesics more effectively than opium and aspirin combined. Apamine tones the nervous system, and cardiopeptide stabilizes the cardiovascular system. Bee venom is hardly a medicine in the usual sense of the word. Firstly, it is a natural remedy that does not contain dyes, additives and other chemical components. Secondly, it only benefits, unlike any drugs that have a lot of side effects. No "chemistry" can replace the natural healing power. Thirdly, bee venom acts on the cause of chronic diseases, and not on their manifestations (symptoms), activating physiological processes in the body. It is due to this that it is possible to achieve a complete cure. The effect of bee venom on the human body is complicated. It depends on the dose of the poison, on the place of sting and the characteristics of the body, in particular on its individual sensitivity.

Effects of bee venom:

- 1) activates the activity of the central and peripheral nervous system;
- 2) stimulates the work of the heart muscle;
- 3) reduces the amount of cholesterol in the blood;
- 4) reduces blood pressure;
- 5) dilates the vessels of the brain and heart;
- 6) has a positive effect on hematopoietic organs, blood plasma and its composition;
- 7) regulates the work of the endocrine glands: pituitary gland, adrenal glands, thyroid, pancreas, sexual glands;
- 8) relieves pain syndrome in osteochondrosis, arthrosis, restores full range of motion, mobility in the spine and joints;
- 9) stimulates the production of dopamine;
- 10) actively restores trophic processes;
- 11) increases physical and psychological activity;
- 12) improves the conduction of the pulse along the nerve fiber;
- 13) promotes the production of opioid peptides (endorphins, enkephalins);
- 14) has a powerful sedative effect, without causing addiction and side effects;
- 15) has an immunocorrective effect;
- 16) improves adaptive capabilities;

17) normalizes sleep, appetite, mood, general condition.

Treatment with bee stings of lumbosacral pathology is prescribed taking into account the characteristics of the disease (prescription, severity of symptoms, etc.) and individual tolerance. Taking into account all of the above effects, apitoxin therapy is used in the rehabilitation of patients after stroke. Based on our accumulated experience of using We came to the conclusion that it is advisable to use apitherapy not only for the treatment of vertebrogenic pathology, but also in patients with the initial stages of chronic cerebral ischemia. Apitherapy allows for a positive effect on metabolic processes, lipid peroxidation, lipid levels in blood plasma, rheological properties of blood, microcirculation. Thus, the use of drugs based on bee venom, in particular Apisartron, is an effective way to treat diseases of the peripheral nervous system systems (neuritis, vertebrogenic pain syndromes) and can be widely used in modern treatment regimens.

### Literature:

1. Artemova A. Healing and rejuvenating honey. — M.: Dilya, 2004. — 160 p.
2. Jarvis D.S. Treatment with natural products. Honey, oil, vinegar. A classic of wellness. — Vector V-N, 2008. — 128 p.
3. Malakhov V.A., Chernyshova T.I., Zavgorodnaya A.N. and others. Apoprophylaxis and apitherapy of nervous diseases. — Kharkiv, 2004. — 153 p.
4. Malakhov V.A., Zavgorodnaya A.N., Chernyshova T.I., Getmanenko A.V. Fundamentals of natural prophylaxis and natural therapy. —Moscow: Eksmo, 2008. — 464 p.
5. Malakhov V.A., Getmanenko A.V., Zavgorodnaya A.N., Chernyshova T.I. Encyclopedia of naturopathy. — M.: Eksmo, 2008. — 400 p.
6. Omarov Sh.M. Apitherapy. Bee products in the world of medicine. Medicine is for you. — Phoenix, 2009. — 352 s