Treatment of multiple sclerosis by apitherapy methods
Eduard Averyanovich Ludyansky (09.29.1931, Donetsk region – 11.01.1995) - Soviet and Russian neurologist, reflexologist and apitherapist. Doctor of Medical Sciences, doctor of the highest category. The most famous work is "Apitherapy" (Vologda, 1994).

Since 1962, head of the neurological department of the Vologda Regional Hospital No. 1. From January 1962 to January 1992, the chief freelance neurologist of the Vologda region.
«...For illustration, here is an excerpt from the medical history of the Vologda Regional Hospital. Patient K. 46 years old, a painter at a movie theater, fell ill with multiple sclerosis in 1974. He made his debut in the form of double vision and urgent urge to urinate; since 1980 he had been suffering from stage 3 MS. Duration of remission 4-5 months. Treated with prednisolone according to I was treated under the scheme of the Institute of Neurology of the Academy of Medical Sciences of the USSR, with B-group vitamins and anti-spastic medications. The effect lasted for 1-2 months. At the end of the course and stage 4 since 1983. The patient was admitted to the course of apitherapy in 1984. On examination pronounced spasticLower paraparesis, pelvic disorders like central retardation, moved around the room on crutches. ... Conducted a course of apitherapy 60 bee stings, propolis 20% 20 drops 3 times a day, honey 60 g per day. One month. Started to walk in the corridor. Spasticity decreased. Remission lasted for 4 months, he was readmitted six months later. Received 116 bee stings and the whole course. He began to walk in the corridor, because stage 4 had changed to stage 3. After the third course of treatment (186 bee stings and other bee products) he left hospital and started an apiary. As he said, he had 450-500 stings a year, combined with honey and propolis. He is back to work as an artist and walks to his studio, though with difficulty. On examination in 1987, he was diagnosed with stage III multiple sclerosis in the form of moderate spastic paraparesis without pelvic disorder. Stage 2 was left with permission to work. In 1992 (18 years since the beginning of the disease) the third stage of the disease was fixed...... Thus, the complex application of bee products is quite justified and can be recommended to medical institutions». P. 206,207
Multiple Sclerosis. The disease belongs to the group of so-called slow neuroinfections. The leading role in the pathogenesis belongs to the process of demyelination nerve fibers, with the development of sensory and motor disorders. Treatment of the disease is complex, including the appointment in severe cases of corticosteroids and p-ferons. However, as a rule, the process progresses and, despite all efforts, often leads to the disability of patients. The aim of apitherapy is to stop exacerbations of the disease, Prevention of possible relapses and combating of residual effects. It must be said that apitherapy has proven to be highly effective in treatment of this severe disease, stopping exacerbations of the process and leading to stable long-term remissions. We should not forget that apitherapy is combined with all traditional therapy and, as a rule, is prescribed in combination with them.

Bee venom. Bee venom in low concentrations reduces demyelination of nerve fibers, improves nerve conduction, has reparative properties. In addition, bee venom has a pronounced effect on the hypothalamus-pituitary-adrenal system, increasing the production of endogenous corticosteroids; it improves blood circulation and relaxes spasmodic skeletal muscles, is an active immunomodulator. Bee venom is used both through natural bee stings and by applying creams containing bee venom along the affected nerves, in paralyzed muscles and biologically active points."
Apitherapy Have a Role in Treatment of Multiple Sclerosis

June 2014 Macedonian Journal of Medical Sciences 7(2):263-268
DOI:10.3889/MJMS.1857-5773.2014.0397

AIM: Multiple sclerosis (MS) is an inflammatory disease in which the fatty myelin sheaths around the axons of the brain and spinal cord are damaged. We Study the effect of Apitherapy in treatment of MS.

MATERIAL AND METHODS: Fifty patients with MS, their ages ranged between 26-71 years, were subjected to complete clinical and neurological history and examination to confirm the diagnosis. All cases were under their regular treatment they were divided into two main groups, Group I received honey, pollen, royal jelly and propolis and were treated with apiacupuncture 3 times weekly, for 12 months, in addition to their medical treatment, while group II remains on their ordinary medical treatment only. Apiacupuncture was done by bee stings for regulating the immune system.

RESULTS: Results revealed that 4 patients showed some improvement regarding their defects in gait, bowel control, constipation and urination, while 12 cases, showed some mild improvement in their movement in bed, and better improvement in bed sores, sensation, and better motor power, only two cases of them were able to stand for few minutes with support.

CONCLUSION: Although Apitherapy is not a curable therapy in MS, but it can be used to minimize the clinical symptoms of MS, and can be included among programs of MS therapy.
A.E. Khomutov, Doctor of Biological Sciences, Professor of the Department of Biochemistry and Physiology. Nizhny Novgorod State University N.I. Lobachevsky.

A. E. Khomutov, K. A. Pursanov, O. V. Lushnikova, Malinovsky D.S.
APITOXINOTHERAPY
MONOGRAPH
NIZHNY NOVGOROD 2015

A.E. Khomutov, R.V. Ginoyan, O.V. Lushnikova, K.A. Pursanov
APITHERAPY
MONOGRAPH
Nizhny Novgorod 2014
Multiple sclerosis is a disease that belongs to the category of not-quite-ordinary, and therefore requires not quite ordinary approaches to combating it. There are dozens of causes that directly or indirectly influence the onset and development of multiple sclerosis, but they all fall into three main groups: 1) hereditary and acquired predisposition; 2) a contributing factor; and 3) a triggering factor. All three factors must be present for multiple sclerosis to occur: the absence of any one of them inhibits the development of the disease. The disease mostly affects people in the prime of their lives and at the peak of their ability to work, it is an unexpected psycho-emotional blow, and after the first visits to the doctor it often becomes a verdict, which contributes to the rapid development of the processes. In recent years, progress in the treatment of multiple sclerosis is clearly lacking. The same drugs - betaferon, copaxone, rebif - are in the foreground. However, the negative aspects (high cost, the need for continuous radiation, lack of direct effect on the myelin being destroyed and, as a consequence, poorly expressed dynamics) require finding new forms of treatment, cheaper and more effective. A number of authors have developed a treatment program for multiple sclerosis by introducing certain fractions of bee venom, which had a beneficial effect on the neurological status, suspension of demyelination, stabilization of red blood parameters, reduction of the severity of neutrophil and monocytic leukocytosis, as well as the plasma reaction of lymphoid tissue. In addition, apitoxins reduce the activity of autoimmune inflammation due to activation of hypothalamic-pituitary-adrenal system and release of endogenous corticosteroids into the blood. Bee venom fractions contain active peptides, amino acids, various trace elements, they improve metabolic immune mechanisms through regulation of vegetative nervous system, normalize vascular tone, increase overall body resistance. At the same time apitoxins have in their composition a large number of amino acids, which act as a "nerve growth factor".
«The authors give preference to apitoxins - components of bee venom that allow to inhibit the development of multiple sclerosis, reduce pathomorphological changes in myelin sheath, obtain remyelination effect, favorably influence the neurological status and improve the conduction of nerve impulses along the synaptic pathways, simultaneously inhibiting the function of sympathetic ganglia, reducing the severity of neutrophil and monocytic leukocytosis and plasma reaction of lymphoid tissue, reducing the activity of autoimmune inflammation, improving metabolic and immune mechanisms, preventing infectious complications, syndromic recovery of lost functions, affecting coordination, etc.»
«Our clinic studied the therapeutic effects of apitoxins on the neurological state of patients, as well as on changes in the neuro-conductive pathways, on immune indicators, and on the blood system in multiple sclerosis, both experimentally on animals and clinically. A rather bold but proven conclusion was drawn from the results of our studies: “Bee venom has combined the best that exists to date in the treatment of multiple sclerosis”.»

Krivopalov-Moskvin Igor Vladimirovich, Psychiatrist-narcologist, MD, professor.
"Multiple sclerosis, new approaches and new life".
iNOS is expressed following the immunological or inflammatory stimulation in macrophages, astrocytes and microglial cells. Then is quickly metabolized into nitrite and nitrate. The method of diagnosing nitrite or nitrate in plasma or urine, can be helpful in diagnosing the inflammation process and the treatment of immune disorders. Our investigations are in accordance with those of Han et al. (2007), who have proven that Bee venom stops the production of NO in microglias, activated by lipopolysaccharides. Bee venom acts as an anti-inflammatory agent through the prevention of NOS activity and COX production. Bee venom is a preventing factor as it results in the decrease of iNOS activity in Rat C6 glioma cells. Cronbach’s alpha value is 76% and R² value is 87%. Data tests confirmed the reliability and validity of this research.

In conclusion, data showed that the treatment of EAE with Bee venom decreases the disease symptoms and pathological changes, level of serum TNF-α and nitrate. This activity of Bee venom may be caused by the anti-inflammatory effects and the immuno-modulatory and antioxidant effects of it.
Examples from the private practice of apitherapy.

Example № 1

Extract from the medical history. "Diagnosis Multiple sclerosis, remitting course, exacerbation. Initial examination. Complaints Episodes of double vision for 10 seconds, occurring without any definite connection with any physical activity, though first noticed double vision six months ago after jogging behind a bus. Subsequently, the doubling episodes occurred for no apparent reason, and after agitation for 10 seconds 5 times a day, passed on their own. At the same time doubling when looking with one eye was not noted, there was no blackout of consciousness. There was no history of fainting or blackouts. He noted increased impressiveness, excitability, restless sleep, occasional headaches of parietal localization, which passed after taking citramon."
He has had episodes of double vision for 10 seconds for several months. He consulted a physician for the first time. Although for many years he had noticed "doubling" of objects against the background of alcohol intake. Within several I gave up alcohol for several months.

Medical treatment: tioc tacid, neuromidine, grandaxin, omeprazole. Discharged from the clinic without much improvement. Suicidal moods and depression were added.

After discharge from clinic he underwent a course of apitherapy. For 35 days. Sessions were conducted three times a week. The duration of the session was 1.5 hours. During the sessions bee stinging was conducted, up to 25-30 bees per session.

The diplopia was gone. Vision normalized. Suicidal mood and depression went away. Appeared Desire to work, I did not drink alcohol.
MRI was performed. The number of demyelination foci decreased in some locations.

Result: no foci of demyelination №3, №4
The area of demyelization foci has decreased in some locations.
Patient, an artist by profession. Diagnosed with multiple sclerosis in 1997, in Iceland. Moves around in a wheelchair. Bladder dysfunction, had to carry a plastic bottle for urination in the wheelchair. Lost the ability to walk, unable to stand at the easel. In order that the patient could draw he was made a special table with a sloping tabletop. Patient was moved from the bed to the wheelchair, and on the wheelchair he approached the table and drew. Had two courses of treatment (ten sessions each) in 2018. Was able to go to the bathroom normally. Started to move around the house with the help of walker, stopped tremor, improved condition of my upper extremities (some straightening of my fingers and toes).