



**Національний  
університет  
біоресурсів і  
природокористування  
України**

**Факультет  
ветеринарної  
медицини**

**НДІ Здоров'я тварин**



**«ЄДИНЕ ЗДОРОВ'Я – 2022»  
Матеріали Міжнародної наукової конференції**



**22-24 вересня 2022 р.  
НУБіП України, м. Київ**

**UDC 636.09:638.16/.17**

**EFFICIENCY OF APITHERAPY IN PRACTICE OF VETERINARY  
MEDICINE**

**Ishchenko Ya., student of the 5<sup>th</sup> course, Faculty of Veterinary Medicine  
Scientific supervisor – Sharandak P.V.,**

**doctor of veterinary medicine, associate professor**

*National University of Life and Environmental Sciences of Ukraine, Kyiv*

Veterinary apitherapy as complementary and alternative veterinary medicine is an inclusive term that describes treatments, therapies, and modalities that are not accepted as components of main-stream veterinary education or practice, but that are performed on animals by some practitioners. The diseases treated with apitherapy are very diverse, and the widespread use of bee products is remarkable due to their anti-microbial, anti-inflammatory, anti-radioactivity, anti-cancer, and wound healing properties.

**Materials and methods.** Honey is used by inhalation of a 10% aqueous solution to treat inflammation of the upper respiratory tract and lungs. Bovine honey I/U infusion have wonderful results since the study conducted 24 lactating cows suffering from exudative purulent endometritis with repeat breeder complain. Topical honey application has a beneficial effect on the healing of cutaneous wounds, ulcers or infected chronic wounds. There is good evidence for honey also having bioactivities that stimulate the immune response promoting tissue growth and wound repair, moreover suppress inflammation. Honey antioxidant activity exhibited by different bioactive micro components such as flavonoids, phenolic compounds, chrysin and amino acids but the main antioxidants are considered to be the polyphenols. Honey increases T and B lymphocytes, as a result of its protection of lymphocyte DNA from oxidative damage, while manuka honey protect DNA of not only lymphocytes but also whole blood cells from oxidative damage. There is an important correlation between high antioxidant and antimicrobial activity, moreover, the antioxidant components present in honey and EEP play a great role in their immunomodulation properties. So, the above mentioned bioactive components at least have all antimicrobial, antioxidant and immunological boosting factors.

Bee venom has antibacterial, immuno-suppressive, immunostimulating, anti-inflammatory, anti-rheumatic, pain-soothing and anticoagulant properties. The anti-inflammation and analgesic effects were proved in various kinds of animal arthritic models. Bee venom is needed in the practice of treating neuritis and neuralgia, paralysis and paresis, as well as eye and skin diseases in dogs and cats. The venom therapy should start with the determination of whether the patient is allergic by administering a small amount of venom intradermally. If there are no adverse reactions, then increase

gradually over several weeks until the maintenance dose is achieved. Bee venom is applied by inhalation or iontophoresis, externally - in the form of an ointment.

Bee wax is used in the practice of veterinary medicine for the purpose of applications and for the preparation of ointments, plasters, suppositories.

Propolis (bee glue) is characterized by bactericidal properties against streptococci, staphylococci, intestinal and pneumococci. Propolis ointments are used to treat wounds and other skin injuries. A 10% solution in ethyl alcohol is effective for the treatment of ringworm in dogs and cats. It is used internally for diseases of the digestive tract and liver, and by inhalation - for diseases of the respiratory organs. Propolis helps to increase the defense forces: in animals, the ability to form specific and non-specific immunoglobulins increases, phagocytosis increases and resistance to infections increases. In the case of external use, stimulation of the growth of granulation tissue, acceleration of cleaning of wounds from purulent exudate, which stimulates rapid epithelization, are noted.

Flower pollen is an excellent source for obtaining a significant amount of vitamins and mineral elements, especially trace elements. In veterinary practice, flower pollen is used for hypovitaminosis and microelementosis.

Royal jelly is used externally for the treatment of burns, wounds, ulcers and other skin damage, and internally as an antimicrobial and immunostimulating agent that promotes the growth of specific and non-specific resistance of animals to diseases.

**Conclusions.** Bee products contain a vast spread of pharmacologically-active ingredients and each one has its own unique combination and properties. Recognized actions include anthelmintic, anti-catarrhal, anti-emetic, anti-inflammatory, anti-oxidant, anti-bacterial, anti-fungal, anti-spasmodic, astringent, diuretic, expectorant, sedative, stimulant and tonic. Studies on apitherapy in veterinary medicine in various public institutions, providing training, and providing financial support for scientific studies on apitherapy will return to the fields of health and economy as gain and prestige.