

SUPPLEMENT WITH ECHINACEA–ZINC–PROPOLIS–FISH OIL TO AID THE ANIMALS' NATURAL DEFENCES

Respiratory disorders in dogs and cats are quite common and due to numerous different ethiopathogenic factors, which however can be generally referred to irritating-infectious phenomena of bacterial or viral formation.

The current need to considerably reduce the use of antibiotics in order to limit drug resistance effects, increasingly calls for the use in veterinary treatment of alternative natural solutions.

The use of natural botanical extracts and omega 3 is a complementary treatment to backup up traditional allopathic medicine, in order to stimulate a rapid immune response and reduce the animal's sensitivity to external attack (bacterial and viral infections, change of season).

Propolis

Propolis is a complex mixture of substances processed by bees, characterized by the presence of flavonoid compounds, caffeic acid esters and diterpenic substances with antibacterial, antiviral, antimycotic actions, widely demonstrated activity both in vitro and in vivo (1).

The use of propolis in the veterinary field, especially in dogs, has been the subject of a review, showing that the use of propolis can bring benefits in case of venereal tumours (TVTS), osteosarcomas, bacterial and fungal infections at systemic and cutaneous level, ear infections, skin and parasitic diseases (2).

Zinc

Zinc is an essential microelement for its important functions as a cofactor in many enzyme systems. 80% of zinc is present in bones and muscles, 11% in the skin and subcutaneous tissue, the rest is distributed to other organs.

When it comes to dogs and cats, zinc plays an important role in epidermal keratinisation in relation to the metalloproteases required for normal protein synthesis (3).

A seriously zinc-deficient diet or a diet with a high presence of chelating compounds, leads to the development of zinc-responsive dermatitis in the dog (4). A zinc deficiency can lead to the development of alopecia, rashes, skin inflammation, impaired keratinization and impaired healing of wounds and grazes (5).

Zinc is also essential for the proper functioning of the immune system in relation to both systemic and skin level bacterial or fungal attacks (6).

Disruption of zinc homeostasis can lead to functional changes, due to a reduced maturation of the lymphocyte population, and also to a reduced intracellular communication via the cytokine system (7).



Echinacea Angustifolia

The immunomodulatory, antibacterial and antiviral activity of Echinacea extracts is the subject of a specific monograph by the European Medicine Agency (EMA) (8).

After 4 weeks of treatment, the use of Echinacea in dogs significantly improved the severity of symptoms related to respiratory infections, reducing nasal secretions, dry coughs and related respiratory difficulties (9, 10).

Fish oil rich in EPA and DHA

The anti-inflammatory action resulting from the direct interaction of omega 3 with the arachidonic acid cascade is well documented.

The action of omega 3 on the immune system allows obtaining a better response and better functionality, reducing allergic phenomena (11).

Supplementation with fish oil allows a normal operation of the cellular structures responsible for antigenic recognition both during the allergic phenomenon and in response to external viral and bacterial attacks (12).

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