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A Veterinary Use of Water Preparation of Propolis

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Abstract: The modern literature of propolis is well populated with experiments on animals but not so well populated in specific clinical veterinary applications. The use of propolis for Newcastle virus in chickens is a notable exception. One possible explanation is the repugnance to animals of ethanol extracts of propolis in all but the smallest of doses, the relative lack of potency in propolis powders, tablets and water extracts, and the biological insolubility of crude propolis. The development of a water emulsion of the entirety of crude propolis, as distinct from a water or hydro alcoholic extraction, removes these impediments.

The possibility of administering high oral doses of a water preparation of propolis (WPP) is one of the most promising uses in veterinary medicine. One such promising protocol is for the Cushing's Syndrome (CS) in dogs. CS is evidenced by a chronic hyperactivity of the adrenals. It is generally attributed to a tumor on either the adrenal or pituitary glands. In dogs, it has clear advanced stage symptoms including excessive thirst and resultant excessive urination, deteriorating muscle tone with a hallmark 'pot' belly, generalized edema, and is often accompanied by skin problems with characteristic putrid smell. There is no known cure for CS and the accepted treatments are expensive, often ultimately ineffective, and can have serious to lethal side effects.

Four dogs have been treated with high oral dose WPP. The treatment consisted of oral administration of WPP at a daily dosage equivalent to 0.4-0.5 gram crude propolis per kilogram body weight, dosed twice daily, twelve hours apart. The treatment period was three months. The animals ranged in age from 5 – 13 years. Two were in very advanced stages of CS, one in advanced stage and one was termed 'sub-clinical' with mild, non-confirming symptoms, but with confirmatory tests. The most advanced case was in a state of general failure when beginning treatment and died after a week. The other very advanced and advanced cases showed noticeable alleviation of symptoms in the first week and substantial to complete alleviation of symptoms by the end of four weeks. The very advanced case was last seen a year and a half after treatment was completed and had remained symptom free with no further treatment. The advanced case was retested for CS after treatment with no evidence of adrenal hyperactivity. The sub-clinical case was re-examined three months after treatment with no evidence of CS.

These cases are indicative of the potential usefulness of high dosage WPP for veterinary conditions not previously treated with propolis. The results suggest that more clinical and laboratory experimentation might prove useful.