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The emerging science of herbal medicine - from tradition to the potential role of herbs in solving some chronic conditions in veterinary medicine

“Natural forces are the healers of disease” – Hippocrates

Treating chronic conditions can be a real challenge to a veterinarian. The pathophysiology is often elusive, and modern research has failed to find definitive solutions to diagnostic methods or treatments. Moreover, we live in a time where the incidence of chronic conditions and degenerative diseases is at an all-time high, both in companion animal and human population. Diseases such as degenerative joint disease, diabetes, heart failure, irritable bowel disease, asthma, chronic autoimmune disease and cancer are all very common in veterinary medicine.

Because of the limitations of conventional medicine, some veterinarians have started to seek for a more integrative approach, where attention is paid to health and healing of the whole animal. I became interested in herbal medicine after pursuing my studies in acupuncture and seeing what acupuncture did to my 15-year-old senior dog, Mysla. She suffers from degenerative joint disease and has elevated liver enzymes for an unknown reason. After receiving acupuncture, Mysla is now enjoying a significantly improved quality of life and is a living testimonial to the tonifying effects of the treatment. When I learned that herbal medicine can also achieve similar results, I became transfixed. How can herbs be so effective in tonifying the body and treating chronic disease, when modern medications seem to often fail at it? I became to look for answers in the philosophy of traditional medicine, as well as in modern herbal research.

The challenges of Western medicine in treating chronic conditions may well be at least partially due to its rationalistic nature. The pharmacological specificity of Western medical therapies gives medical treatments a targeted focus which may often be to the neglect of the general status of the individual.¹ Traditional healing systems, instead, believe in the innate abilities of human or animal organism to heal itself. The goal is to restore balance, or homeostasis. One of the key features that differentiate traditional medical practice from conventional medicine is the method of matching a particular treatment to the constitution and needs of the individual patient, rather than treating the basis of a single diagnosis per se.² Herbal medicine emphasizes accompanying conditions and predisposing or underlying causes of disease in every prescription.³

In traditional medicine, different philosophical constructs are often used in creating a different kind of individualized approach. When it comes to chronic conditions, one interesting philosophical construct is the Chinese concept of deficiency, and the belief in the ability of herbal medicine to address it. Herbs both in Western and Chinese traditions are known to have tonifying properties. These tonic herbs, by definition, are used to help restore, tone and invigorate systems in the body or to promote general health and wellbeing.⁴

The properties and nature of herbs and their therapeutic effects have been studied and documented by many generations of herbalists and physicians. Modern research is now starting to catch up with the ancient knowledge. In my search for evidence, I used my dog Mysla and her chronic conditions as an example.

An herb that has shown great potential for treating arthritis, is the South African plant Devil's claw (*Harpagophytum procumbens*), which has been traditionally used for joint pain. Although studies are still unclear as to which activities and ingredients provide the benefit, it has been demonstrated that the herb contains harpagoside and β -sitosterol, which have anti-inflammatory and analgesic properties, probably through suppression of cyclo-oxygenase (COX-2).⁵ Other herbs that are commonly used in treating osteoarthritis are Boswellia, Ginger, Meadowsweet and Yucca.⁶ Furthermore, curcumin, the principal curcuminoid of the plant Turmeric (*Curcuma longa*) has been proven to be reduce synovitis, relieve osteoarthritis-related pain and significantly slow disease progression.⁷

Milk thistle (*Silybum marianum*) is the most well-researched plant in the treatment of liver disease. Research has proven that silymarin, an active complex of three isomer flavonolignans, acts as an antioxidant, has antifibrotic activity and may inhibit binding of toxins to hepatocytes.⁸ In addition to its hepatoprotective effects, Milk thistle seems to have great potential for treatment of cancer. Silibinin, one of the flavonolignans of milk thistle, has been proven to exert strong antiproliferative, proapoptotic and anti-inflammatory effects, and further research suggests that it may serve as a novel form of therapy in treatment of many types of cancer.⁹

Because of the complexity of both herbal medicine and chronic disease, current research standards of Evidence Based Medicine may be a challenge for research, and a more holistic approach may be needed. A single herb typically contains over a hundred different ingredients and molecules in comparison to a single effective active ingredient of each drug. Although herbs can be broken down into phytochemicals, many herbalists believe that herbs are more than a sum of their parts. Even when an active component can be found, it may have important synergistic properties with other phytochemicals and components of the herb, or with other herbs when used in a complex herbal prescription.¹⁰

Despite the challenges of herbal research, the complexity of herbs may well be the very reason for why they are so effective in treating chronic conditions. Chronically ill patients may often have several unidentified comorbid conditions which affect their health and quality of life. In these difficult and complex cases, using a herb with hundreds or even thousands of components may prove to be a good solution, as the herb might have a better chance of offering something useful than a single chemical.¹¹ Herbs also supply vitamins and minerals that enhance the nutritional status, while their pharmacologically active components promote specific eliminative functions, modulate multiple body systems and cellular functions.¹²

In my opinion, herbal medicine can and should be integrated to conventional care of chronically ill patients. When the two systems can be used in harmony, there is greater potential for healing than either system can deliver on its own. There are currently no veterinarians practicing herbal medicine in my country, which is a great loss both for the veterinary profession and for our animals. Because of the apparent need for professionals with expertise and training, I am even more determined to pursue my herbal studies.

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