

COMPLEMENTARY MEDICINE & THERAPY FOR SMALL ANIMALS

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The purpose of this lecture is to provide information about complementary medicine and therapies: what they are, how they work, when they are helpful, when they are contraindicated. The term *complementary* is used to indicate that these modalities are an adjunct to allopathic care, not only an alternative. They may provide alternative outcomes, including the avoidance of surgery, reduction in medications needed, and the avoidance of complications in treatment or recovery. They can enhance the quality of care that we can provide and more importantly, they can enhance the quality of life for the animals.

CHIROPRACTIC

Chiropractic is a successful, noninvasive, cost effective technique for treatment, rehabilitation, and prevention of many common problems. Chiropractic is based on manipulation of joints of the spine and extremities to affect optimum function and balance of all structures, in other words, *straightening the hardware so the software can run*. Ninety percent of the input to the nervous system is from joint receptors and stretch receptors in tendons, ligaments, and muscles. The nervous system runs the whole animal; therefore managing the nervous system through these receptors is efficient, accurate care. Good chiropractic, applied by an appropriately trained and skillful practitioner is not violent or uncomfortable. The animals can understand it, enjoy it, and often obtain immediate relief from it.

Chiropractic adjustments may vary between practitioners; there are more than a hundred types of chiropractic technique, many of which are applicable to animals. The foremost consideration is that the animal is not harmed, as should be the case in all medicine.

Chiropractic care involves *accurate* manipulation of individual joints through normal planes of motion using high acceleration, short range-of-motion thrust that affects a reset of joint receptors and normalizes joint orientation. The practitioner must have training in both species-specific anatomy and accurate technique. Chiropractic can be very exact in managing the nervous system; sophisticated techniques have far reaching and subtle effects.

Balance in animals is the effective interaction of the nervous system, the frame, and movement with gravity. The interface of the nervous system with gravity is mostly through the feet. The monitors of gravity, the balance regulating mechanisms, are in large part, the upper cervical head-righting reflexes and the temporomandibular joint (the jaw joint). Eighty percent of the aforementioned ninety percent of input to the brain comes from the second cervical vertebra and the joints rostral to it, including the skull. Therefore, appropriate toenail management and dentistry are of the utmost importance in maintaining balance and straightness.

Chiropractic is necessary is when an animal is asymmetrical, "dumb," or "crabby." Chiropractic may be helpful after any trauma, toxicity, or stress. Therefore any animal

with a history of illness or accident is a potential chiropractic patient. Chiropractic care is best used preventively and as maintenance health care. Evaluation of young animals can minimize the future effects of early life asymmetries and often allow these animals to reach their full potential.

Most painful pathologies - arthritis, dysplasia, disc problems, etc. often are *not* primary problems. They are the signs of overuse or hypermobility caused by restriction of normal movement or hypomobility somewhere else in the system. Chiropractic is the facilitation of appropriate movement of all joints so that all joints share the stresses appropriately. The majority of chronic lameness problems are not injury related but are the result of unbalanced wear and tear.

The use of antiinflammatories may be eliminated by normalizing joint function and balance. The use of antiinflammatories without resolving the cause of joint use imbalances may not be as effective, can shorten the functional life of a joint, and may have other detrimental physiologic effects.

Usual complaints that cause owners to seek chiropractic treatment for animals are back pain, proprioceptive problems, stiffness, uneven gaits, arthritis, stifle, elbow and hip problems, obscure lameness, and poor development. Animals with high stress occupations, or animals with preexisting conditions or conformational problems, may require more frequent adjustments than those needed for maintenance health care.

Anything that is run by the nervous system can be influenced by chiropractic - musculo-skeletal, digestive, immune, and reproductive - all systems can improve with better neurologic function directing them. Chiropractic care is a systematic way of eliminating structural and neurologic dysfunctions that cause pain, alter performance, cause organic disease, and result in emotional and training problems. Its effects can be profound, long lasting, and life changing.

It is as important to recognize the practice of poor chiropractic technique as it is to understand good chiropractic work. Inaccurate adjusting may not improve or can worsen the condition, and unknowledgeable or inappropriate technique can cripple. Good work will almost always effect noticeable improvement and will be well received by the patient.

ACUPUNCTURE

Western and Eastern veterinary medicine are very different but complementary forms of health care. They differ in their philosophical and practical view of the mind-body interaction with the world. Western medicine evaluates the external causes and resulting pathologies of illness and concentrates on eliminating these. Eastern medicine focuses on basic body function and the body's reactions to illness and assists these to eliminate or prevent disease.

Acupuncture is an ancient and complex system of medicine. Acupuncture is often an effective treatment for chronic problems of back pain, foot and joint pain, chronic and non-responsive illness, including allergies, lick granulomas, chronic bronchitis, kidney and heart disease, and other immune-mediated problems. Acupuncture can also be effective in modifying behavior.

Acupuncture is the stimulation of specific receptors by needles, laser, and other means that modify input to the nervous system and therefore change function. The integration of neurologic information from the body with acupuncture stimulation results in the balancing of Qi, or energy flow, that is discussed in traditional acupuncture theory. Its effect is somewhat analogous to the direction of electricity by the fail-safe computer programs of power companies that ensure that power supply is uninterrupted to utility

consumers even under conditions such as storms, increased demand, or equipment failure.

The autonomic nervous system and its reflexes control the defense systems in the body, both internal and external. The neuroendocrine system allows an animal to adapt to changes both inside and out. A primitive part of the nervous system is also involved in the sensing, control and regeneration of damaged tissue and pathologies such as wounds, fractures, early neoplasms, inflammation, etc. Acupuncture can have a profound effect on modifying autonomic function and directing this primitive system.

With simple acupuncture there are no significant ill-effects; the worst that can happen is that the treatment has little or no effect. No change, however, is rare. Most animals experience a profound endorphin release and appear almost tranquilized while being treated with acupuncture. Physiologic, sensory and motor function can be immediately and sometimes permanently normalized.

MASSAGE

There are many different massage techniques, each with a different approach, including sports massage, myofascial release, cross-fiber friction massage, and cranial techniques. Massage assists normal body function by increasing circulation, facilitating scar release, providing neuro-muscular re-balancing and relaxation.

Massage can be used for performance enhancement. It can be very helpful in reorganizing musculature that has been unbalanced by chronic compensation for pain. Massage is contraindicated if an animal has a fever, if the injury is acute, or if there is an area of bruising. Not only is massage not helpful in those cases, but it can actually be detrimental. A qualified, preferably certified, massage therapist should determine whether massage is appropriate or a veterinarian consulted before treatment.

ELECTROMAGNETIC THERAPY

EMT is the use of electromagnetic fields to stimulate or accelerate blood flow and energy movement within tissues to alleviate inflammation and pain and to allow maximum healing to occur. Two types of devices are common: the pulsed alternating field type (with electrical wiring in the blankets, bandages, or bedding) which are adjustable in strength, frequency, and duration of treatment, and the static type (which utilize small magnets arranged in alternating polarities within the blankets and wraps.)

Alternating polarities attract ions in blood and cells increasing fluid flow as well as enhancing ion exchange at the cell membrane level. This increases function at the cellular and vascular level. EMT can make tissues more flexible and less prone to injury. It can be used for maintaining sufficient blood flow for toxin removal and repair after strenuous work in performance animals. The increase in electrical energy flow can also enhance the flow established by acupuncture. In conjunction with other therapy modalities, it can reduce rehabilitation time after surgery. EMT can also be used in healing fractures; it is excellent for treating nonunions.

EMT usually calms and relaxes the animal. Some patients' signs may be slightly worse immediately after treatment - these animals usually have severe mechanical problems resulting in major blockages in the nervous and the circulatory system. These animals often show improvement from the treatment several hours later.

LASER THERAPY

Cohesive infrared light, or cold laser, can be used to provide energy for cellular metabolism by converting ADP to ATP in the mitochondria, thus facilitating transport of

nutrients into and toxins out of cells. It is especially valuable in conditions where the blood supply may be insufficient to support the cells. Laser therapy can keep cells alive and functioning and thus enable these injuries to heal faster, with less scarring.

Laser therapy is most commonly used for wounds and soft tissue healing. It is also useful as a powerful acupuncture tool. It can reduce pain and tension and reset proprioception, therefore normalizing function. Laser treatment will not block structural pain such that an animal will unknowingly hurt an injured limb. It is not appropriate to use lasers over certain topical medications, infections, or tumors. Regular laser therapy can enhance healing of orthopedic injuries and enhance performance by healing normal athletic wear and tear more rapidly.

HOMEOPATHY

Homeopathy is electrical informational medicine. A substance that is shown to produce particular signs or symptoms is serially diluted and succussed (vigorously shaken) until there is a *very* small proportion of the original substance remaining in the solution. It is thought that this "infinitesimal dose," as it is called, contains the electrochemical pattern of the medicinal substance. The science of physics is now beginning to explain the underlying mechanism of the interaction of the body with this electronic signature. Homeopathic remedies are specific for sets of neuronal, genetic and energetic systems within the body. Activation or deactivation of these systems creates a spectrum of specific signs and symptoms. Accurate use of remedies can profoundly and quickly change function. A basic tenet of homeopathy is that "like cures like." Because of this, it is often mistakenly likened to vaccination. However, homeopathic remedies differ fundamentally from vaccines. Homeopathic remedies affect the energy of the body in order to stimulate healing and in doing so they strengthen the body's response to a disease-related stress.

NUTRITION AND HERBS

Nutrition is fundamental to health. Inappropriate substances or imbalances in the diet can sabotage the best treatment. Recently, awareness of the inadequacies of commercial animal diets has increased and alternatives such as raw diets and natural diets with human grade ingredients have become available. The benefits of using these diets are obvious in everything from coat quality to behavior and in reduction of signs of degenerative disease.

Herbs can be as powerful as synthetic drugs; they contain pharmacological chemicals. Native North and South American and Eastern/Chinese/Ayurvedic herbology are very complex systems of medicine. Balanced herbal prescriptions can create effects not achievable with drug management. Prescribing of herbs or extrapolating from popular human uses may not be safe for animals as they may not respond physiologically in the same way as humans. Knowledgeable veterinary practitioners must be consulted for guidance in the use of these substances.

REFERENCES & RESOURCES

American Veterinary Chiropractic Association: <http://www.animalchiropractic.org/>
PO Box 563, Port Byron, IL 61275 USA, phone: 309-658-2958, AmVetChiro@aol.com
Professional certification in animal adjusting.

International Veterinary Acupuncture Society: <http://www.ivas.org/>
P.O. Box 271395, Ft. Collins, CO 80527-1395, phone: 970-266-0666, office@ivas.org
Professional certification in veterinary acupuncture.

The American Academy of Veterinary Acupuncture: <http://www.aava.org/>
Box 419, Hygiene, CO 80533-0419, phone: 303-772-6726, AAVAoffice@aol.com
National organization for veterinary acupuncturists.

The Veterinary Acupuncture Page: <http://med-vetacupuncture.org/english/veter.htm>
Excellent resource for information.

Schwartz C. *Four Paws Five Directions, A Guide to Chinese Medicine for Cats and Dogs.*
Berkeley: Celestial Arts, 1996.
A comprehensive, understandable text for lay and professional readers.

The Healing Oasis Wellness Center: <http://www.thehealingoasis.com>
2555 Wisconsin St., Sturtevant, WI 53177, phone: 262-884-9549,
howc@thehealingoasis.com
Government recognized, continuing education available in complementary therapies.

Steiss JE. Magnetic Field Therapy: Theory and Application Principles, in *Proceedings*. 1st International Symposium on Rehabilitation and Physical Therapy in Veterinary Medicine 1999; 51-53.
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An excellent primer in basic homeopathy, clear and concise explanations.

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A popular exposé on the pet food industry.

The Nutraceutical Alliance: <http://www.nutraceuticalalliance.com/>
Organization of manufacturers of nutraceuticals for animals.