

Integrative Therapies in Veterinary Practice

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ABSTRACT

Integrative veterinary therapies include comprehensive medical approach to animal care that combines the best of conventional medicine and complementary and alternative medicines or therapies. Complementary and alternative veterinary medicine therapies that may be included in an integrative medicine approach include chiropractic therapy, acupuncture, phytotherapy, nutraceuticals, homeopathy, physiotherapy, aromatherapy, chromotherapy etc. and are designed to stimulate adaptive homeostatic mechanisms in the body and or to provide the body substances by which the body can heal itself.

Keywords: Integrative therapy, Alternative medicine, Veterinary therapy.

INTRODUCTION

Integrative therapies constitute a very wide range of disciplines from around the world. Many of these therapies can be utilized to treat animals when used in combination with conventional medicine. Many terms have been used to describe these forms of treatment, including integrative therapy, alternative therapy, holistic care and complementary medicine. Each of these terms has specific implications and none of them is entirely accurate. Alternative therapy suggests another way to do the same thing. Complementary implies that it augments conventional therapy. Holistic refers to treatment of the whole patient in a complete approach, but usually

infers that it is separate from conventional therapy. Integrative therapy involves the integration of a variety of modalities into a more complete healthcare system¹ and includes some natural or herbal medicinal products, non pharmacological treatments and counselling on health and behavioural issues.² Several integrative modalities are described below which are used in Veterinary Practice.

Chiropractic therapy

Chiropractic, derived from the Greek words "cheir" and "praxis" meaning "practice done by hand," is defined as "that science and art which uses the inherent

recuperative powers of the body and deals with the relationship between the nervous system, spinal column including its immediate articulations and the role of this relationship in the restoration and maintenance of health".³ Animal Chiropractic therapy focuses on the biomechanical dysfunction of the spine and extremities and its effect on the entire nervous system throughout the body and thus helps to maintain the neuro-musculoskeletal system. Chiropractic treatment of large animals dates back to the early 1900s and used typically to treat working horses, racing greyhounds and pets. Veterinary Chiropractic treatment does not replace traditional veterinary medicine; however, it can provide additional means of diagnosis and treatment options for spinal problems as well as biomechanical related musculoskeletal disorders.⁴ This therapy can often eliminate the source of acute or chronic pain syndromes rather than treat the symptoms. There is limited evidence supporting the effectiveness of spinal manipulation or mobilization for equine pain management and the efficacy of specific equine manual therapy techniques is unknown.

Acupuncture

Acupuncture may be defined as the stimulation of a specific point on the body referred to as an "acupoint." Physiological changes in response to acupuncture point stimulation is the basis of clinical treatment. Some of these include release of endogenous opioids, immune system stimulation, blood pressure regulation, and body temperature regulation. Thus, many techniques have been developed to stimulate "acupoints" such as dry needle, moxibustion, electro-acupuncture, aqua-acupuncture, hemo-acupuncture, acupressure, and pneumo-acupuncture.⁵ Veterinary acupuncture has been practiced in China for at least 2,000

years. Acupuncture is used mainly for functional problems such as those involving non-infectious inflammation, paralysis, or pain. For small animals, acupuncture has been used for treating arthritis, hip dysplasia, lick granuloma, feline asthma, diarrhoea, and certain reproductive problems. For larger animals, acupuncture has been used for treating downer cow syndrome, facial nerve paralysis, allergic dermatitis, respiratory problems, nonsurgical colic, and certain reproductive disorders.⁶ Acupuncture has also been used on competitive animals, such as those involved in racing and showing. Veterinary Acupuncture has also recently been used on more exotic animals, such as an alligator with scoliosis, though this is still quite rare. Electro-acupuncture stimulation with high frequency (80-120 Hz) which involves passing of electric current through a needle inserted in an acupoint can alleviate the experimental pain in the horses.⁷ Laser acupuncture in which stimulation of acupuncture points is done with low-intensity, non-thermal laser irradiation is found effective in controlling pain and edema in specific experimental conditions.⁸

Phytotherapy

Phytotherapy involves the use of herbs or products of herbs and is also an old form of therapy. The use of specific herbs for medicinal purposes dates back thousands of years. Several herbs are mentioned in the Bible, and archeologists have documented herb use back to prehistoric times. Approximately 25% of our conventional drugs are derived from plants. Conventional drugs typically contain a single active constituent from the plant, whereas herbs provide a broader and more balanced effect on the body through the synergistic actions of the herbal components. Herbs are best prescribed to treat the entire individual and not only the clinical signs.⁹ Many active

ingredients have been identified in medicinal plants, namely polysaccharides, steroidal compounds like saponins (anti-inflammatory effects), flavonoids (antibacterial, antiviral, antiallergenic and liver protective effects), alkaloids (increase the white blood cell count), glycosides and many others.¹⁰ Herbal blends and formulations combine the benefits of multiple herbs, which typically produce a synergistic action while minimizing the potential toxic effects of a single herb. Herbs provide many unique qualities that are very limited in conventional medicine, such as anticancer, antiviral and immunoregulation properties. Herbal remedies are much more effective than conventional therapy in treating metabolic conditions such as liver and kidney diseases. Herbs are an excellent alternative to antibiotics in the treatment of infectious diseases, with wider antibacterial effects in addition to various antifungal and antiviral actions. Many of these herbal remedies also support the immune system to assist in the full recovery of the patient. Some herbal formulations serve as detoxification agents, antioxidants and anticancer therapies.

Nutraceutical therapy

Nutraceuticals are micronutrients, macronutrients and other nutritional supplements that are used as therapeutic agents. They are defined as non-drug substances in a purified form derived from food, or a component of food, and have physiological effects and therapeutic benefits. Examples include vitamins and minerals, probiotics, digestive enzymes and antioxidants.¹¹ This is the clinical application of nutrition in the treatment of disease and metabolic disorders. They often help to reduce the amount of drug necessary to manage disease conditions such as atopy, degenerative joint disease and congestive heart failure and can be of great assistance in

supporting recovery and boosting vitality, as well as a useful fall back for health conditions where drug use is not appropriate i.e. Drug side effects, financial constraints, etc. Nutraceuticals are usually dosed orally. It is commonly stated that malnutrition is the underlying cause of many of the disease syndromes encountered in birds and exotic pets. Vitamins, minerals and fatty acids often have a synergistic effect and by supplementing an animal's diet with a good quality broad spectrum supplement, providing optimal amounts of important micronutrients helps to ensure optimum health, vitality, immune status, growth, fertility, muscle and tendon strength and recovery. For convalescing animals, adding such a supplement usually assists with improved healing, increased strength and vitality, promotion of weight gain and increased appetite.

Homeopathy

Homeopathy which involves the principle "like cures like" is based on concept of using a very diluted form of a substance to treat a condition or group of symptoms in sick patients, which in its full strength would cause the same set of symptoms in the healthy patient.¹² The word "homeopathy" is derived from the Greek words "homios" meaning "similar" and "pathos" meaning "disease or suffering." These remedies are made from plants, minerals, drugs, viruses, bacteria or animal substances. Homeopathic remedies work on the deep energetic level of the patient to undermine the constitutional cause of the disease, rather than mask its symptoms. Conditions which commonly respond to homeopathy include arthritis, atopic dermatitis (eczema), lameness, epilepsy, diarrhoea, respiratory problems, aggression, fear, pruritus (itching), hyperthyroid and kidney failure. Homeopathy can deal with many of the acute and chronic medical

conditions like downer syndrome and mastitis in cattle, and colic in horses. Homeopathy can be used equally well for both minor conditions and for more chronic problems when prolonged treatment may be required. By choosing correct remedy, this therapy proves to be effective in potentially life-threatening conditions, such as epilepsy or bloat.¹³ Camerlink *et al.*¹⁴ found that piglets of the homeopathic treated group had significantly less *E. coli* diarrhoea and duration was also shorter.

Aromatherapy

The therapeutic application of aromatic essential oils is known as aromatherapy. The administration of the oils by diffusion or aerosolization is most common, but topical and oral applications also are effective routes for some formulations. Essential oils are considered antiseptic, antimicrobial, detoxifying and rejuvenating, and can help with emotional issues such as anxiety and stress and physical issues such as skin problems and pest protection. Essential oils are easily absorbed either through the olfactory system or the skin¹⁵ and act on the underlying vibrational energy of the patient to restore the energetic imbalance causing the disease or condition. By increasing the vital force of the patient, aromatherapy strengthens the natural immune system and promotes self-healing. Aromatherapy can be used as alternative measure to treat otitis externa¹⁶ and travel induced excitement in dogs,¹⁷ and to hasten the recovery time in acute-stressed horses.¹⁸ The oils used in aromatherapy should have therapeutic grade and must be applied by the professional with necessary precautions.

Physiotherapy

Physiotherapy has often been described under the heading of or 'alternative medicine'. It is, in fact, neither

'alternative' nor a system of medicine but it is indeed complementary to other therapies. Physiotherapy, defined as a therapy using "...physical approaches to promote, maintain and restore physical, psychological and social well being...",¹⁹ is an ancillary or supportive therapy, which can be of excellent value in helping restoration of function, mobility and rehabilitation, after injury, prolonged veterinary treatment etc.²⁰ Veterinary physiotherapy is used for restoration and maintenance of mobility and function. It may also be used preventatively to avoid recurrence of a problem. Although dogs and horses are the most common species to receive 'physiotherapy', most animals will benefit even exotic pets and farm animals. Physiotherapy may involve use of instruments, such as ultra-sound, LASER and magnets. However, it is commonly a manual, hands-on therapy, using deep massage, exercises and range of movement activity. It may also include a programme of controlled swimming or hydrotherapy.

Flower essence therapy

Flower essence therapy is a form of vibrational healing, which treats with pure energy to generate changes in the energetic field of the client. Healing with flower essences proposes similar principles to homeopathy although it should not be confused with essential oils of aromatherapy. Flower essences are prepared by creating dilute infusions of fresh blossoms of a particular plant species.²¹ The underlying premise is that all life forms possess an innate vibrational energy force that is disrupted by conditions and circumstances of our environment, leading to disease and illness. These disruptions are further related to emotional and behavioural specifics, which can be characterized and treated with the vital energy or essence of certain flowers. The aroma or essence of a

flower naturally elicits an emotional response, similar to the way music affects an individual's mood. Flower essence therapy has proven particularly useful in assisting animals that have been abused, neglected or that have become stressed and anxious due to interface with human beings.

Chromotherapy

Chromotherapy involves the principle that each colour possesses a specific vibration and a therapeutic capacity which produces chemical changes in a subtle way interfering in the metabolism wants in level physical or emotional. The main hypothesis of chromotherapy is that specific colours of the visible spectrum are activators or inhibitors of complex physiological, biological and biochemical processes in brain such as synthesis of various neurohormones, precisely melatonin and serotonin.²² The main chromatic spectrum was classified in the following way: hot (red, orange, yellow and their tones), cold (blue, indigo, violet and their tones) and bivalent (green and their tones). Problems like apathy, depression, anxiety, nervousness, dermatitis, pain, inflammation, infection, fractures and muscular problems can be treated with this therapy.

Crystal therapy

Crystals have been used for thousands of years as a method for healing a range of ailments for both animals and humans. An animal's body has 7 chakras (or energy points) and all crystals have a charge which when positioned correctly help the body's natural energy flow to be restored. When the body is suffering injury or disease its normal energy flow is disrupted - the crystals help to resolve this, thus facilitating the body to heal itself. All crystals have healing properties that can help by healing physical, mental, emotional or spiritual level.²³

CONCLUSION

Integrative therapy signifies the comprehensive approach to animals by combining conventional medicine with alternative therapies. Usually the medicines and therapies that complement one another and work for prevention and treatment of diseases are preferred. The ultimate challenge is to minimize the adverse effects, maximize successful treatment and improve the quality of life of animals.

REFERENCES

1. Ness RD. Integrative therapies. *Clinical Avian Medicine*. 2006. p-343-364.
2. Kienle GS, Albonico HU, Fischer L, Freier Erb M, Hamre HJ, Peter Heusser P, Matthiessen F, Renfer A, Kiene H. Complementary therapy systems and their integrative evaluation. *Explore: The Journal of Science and Healing*. 2011; 7(3):175-187.
3. Homewood AE. The Neurodynamics of the Vertebral Subluxation. *Houston: Parker Research Foundation*. 1962. p-21.
4. Taylor LL, Romano L. Veterinary chiropractic. *The Canadian Veterinary Journal*. 1999; 40(10):732.
5. Filshie J, White AR. Medical acupuncture. *Edinburgh, PA: Churchill Livingstone*. 1998. p-225-294.
6. Habacher G, Pittler MH, Ernst E. Effectiveness of acupuncture in veterinary medicine: systematic review. *Journal of veterinary internal medicine*. 2006; 20(3): 480-488.
7. Xie H, Ott EA, Harkins JD, Tobin T, Colahan PT, Johnson M. Influence of electro-acupuncture on pain threshold in horses and its mode of action. *Journal of Equine Veterinary Science*, 2001; 21(12):591-600.
8. Lorenzini L, Giuliani A, Giardino L, Calzà L. Laser acupuncture for acute inflammatory, visceral and neuropathic pain relief: an experimental study in the laboratory rat. *Research in veterinary science*. 2010; 88(1):159-165.

9. Smith-Schalkwijk MJ. Veterinary phytotherapy: an overview. *The Canadian Veterinary Journal*. 1999; 40(12):891.
10. Dharmananda S. Chinese Herbal Therapies for Immune Disorders. *Portland: Institute for Traditional Medicine and Preventive Health Care*. 1988.
11. Wildman RE, Kelley M. 1 Nutraceuticals and Functional Foods. *Nutraceuticals*. 2007.
12. Hahnemann S. The homœopathic medical doctrine: or, "Organon of the healing art". *WF Wakeman*. 1833.
13. Vockeroth WG. Veterinary homeopathy: an overview. *The Canadian Veterinary Journal*. 1999; 40(8):592.
14. Camerlink I, Ellinger L, Bakker EJ, Lantinga EA. Homeopathy as replacement to antibiotics in the case of *Escherichia coli* diarrhoea in neonatal piglets. *Homeopathy*. 2010; 99(1):57-62.
15. Bell KL. In: Holistic aromatherapy for Animals: A Comprehensive Guide to the Use of Essential Oils & Hydrosols with Animals. *Findhorn Press: Forres Scotland, UK*. 2002. p-1-45.
16. Kim SH, Jun HK. Efficacy of aromatherapy for the treatment of otitis externa in dogs. *대한수의학회지*. 2009; 49(1):85-89.
17. Wells DL. Aromatherapy for travel-induced excitement in dogs. *Journal of the American Veterinary Medical Association*. 2006; 229(6):964-967.
18. Ferguson CE, Kleinman HF, Browning J. Effect of Lavender Aromatherapy on Acute-Stressed Horses. *Journal of Equine Veterinary Science*. 2013; 33(1):67-69.
19. Buchner HHF, Schildboeck U. Physiotherapy applied to the horse: a review. *Equine veterinary journal*. 2006; 38(6):574-580.
20. McGowan C, Goff L, Stubbs N. Animal physiotherapy: assessment, treatment and rehabilitation of animals. *John Wiley & Sons*. 2008.
21. Barnard J, Barnard M. The Healing Herbs of Edward Bach, An Illustrated Guide to the Flower Remedies. *Bath, England: Ashgrove Press*. 1994.
22. Radeljak S, Žarković-Palijan T, Kovačević D, Kovač M. Chromotherapy in the Regulation of Neurohormonal Balance in Human Brain—Complementary Application in Modern Psychiatric Treatment. *Collegium antropologicum*. 2008; 32(2):185-188.
23. Scott JM, Mariani G. Crystal Healing for Animals. *Findhorn Press: Scotland*. 2002.