

Animal Chiropractic

A literature review

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Abstract

Objective: The focus of this review is to explain what animal chiropractic is, how it can benefit animals, what chiropractic can treat and not treat in animals, and adjunctive therapies. This review will also discuss state laws regarding animal chiropractic, and restrictions of practicing animal chiropractic in several states.

Data and Collection: Articles were found on Pub med using the key terms “animal chiropractic” and “veterinary chiropractic,” which resulted in several articles. Google scholar was another resource used to find articles about animal chiropractic. Books were also used to convey animal chiropractic and provide basic definitions regarding chiropractic. Websites, like AVCA, Options for Animals, and Parker University, were used for the requirements, programs offered, and length of the postgrad programs available in animal chiropractic. A report from the AVMA was utilized to depict the state laws and how they vary from state to state.

Conclusion: Animal chiropractic is a growing field in both veterinary and chiropractic medicines. Further research will be needed to explain how and why chiropractic works for animals, to convince and educate the population to use chiropractic

Key words: *Animal Chiropractic, Veterinary Chiropractic, subluxation, adjustment, American Veterinary Chiropractic Association, International Veterinary Chiropractic Association*

Introduction

Animal chiropractic is a growing profession in the United States, and is one of the more controversial practices in the animal world. A contributing factor to the controversy is that the veterinary profession is not educated in the use of chiropractic in animals and the limited research available about chiropractic. As a result, many laws have been passed limiting the practice of animal chiropractic and the requirements needed to practice animal chiropractic. The major organizations in this field and providing the education of the animal chiropractors are the American Veterinary Chiropractic Association and the International Veterinary Chiropractic Association, which teach both veterinarians and chiropractors how to practice animal chiropractic. The purpose of this literature review is to explain the history of animal chiropractic, basic principles, education, associated laws and organizations, perceptions and future of the profession.

Methods

Data and Collection: Articles were found on Pub med using the key terms “animal chiropractic” and “veterinary chiropractic,” which resulted in several articles. Google scholar was another resource used to find articles about animal chiropractic. Books were also used to convey animal chiropractic and provide basic definitions regarding chiropractic. Websites, like AVCA, Options for Animals, and Parker University, were used for the requirements, programs offered, and length of the postgrad programs available in animal chiropractic. A report from the AVMA was utilized to depict the state laws and how they vary from state to state.

Discussion

Definitions

“Subluxation is defined as a motion segment in which alignment, movement integrity, and/or physiologic function is altered, although contact between joint surfaces remains intact (3).” While a “subluxation complex is a theoretic model of motion segment dysfunction that incorporates the complex interaction of pathologic changes in nerve, muscle, ligamentous, vascular, and connective tissues(3).”

“Chiropractic adjustment is any chiropractic therapeutic procedure that utilizes controlled force, leverage, direction, amplitude and velocity, and which is directed a specific joints or anatomical regions. Chiropractors commonly use such procedures to influence joint and neurophysiological function (3).” “Palpation is the act of feeling with the hands; application of variable manual pressure through the surgace of the body for the purpose of determining the shape, size, consistency, position, inherent motility, and health of the tissue beneath(3).”

History

Animal chiropractic as a study was established by D.D. Palmer and B.J. Palmer. B.J. Palmer started a certification program for animal chiropractic, which included a one month training program with a diploma once completed (10). Early chiropractic focused on proving the theories that the profession is based upon, such as vertebral subluxation

and the effect of the adjustment. However, the research on animals just proved the connection between impingement and disease of the organ.

Animal chiropractic was slow to progress following the contributions from the Palmer family. Dr. Medford was one of the leaders in the revival of the profession, by providing chiropractors one on one training on adjusting animals and adjusting techniques in the early 1950s (10). In 1988, Sharon Willoughby, DVM, DC, took over the organization Options for Animals (13). In 1989, American Veterinary Chiropractic Association was formed, and in 1991 began to issue certification programs in animal chiropractic (1). The certification process at the time was only one hundred hour certification program, and has become a two hundred hour certification program (13). The American Veterinary Chiropractic Association (AVCA) is responsible for determining the requirements for education, accreditation of the schools, and certification, but cannot guarantee the physician will be able to adjust in their home state due to the variation of laws from state to state (1). Currently, there are only three accredited schools for animal chiropractic in the United States (1).

Education

The AVCA certification requires completion of the program through one of the three certified schools, which are Parker University, Options for Animals, and Healing Oasis Wellness Center (1). Each certification program requires 204 to 226 hours of class and clinical hours for certification (1). The three schools also require the applicant

to have completed or near completion of the chiropractic program or veterinary program.

Parker University (Dallas, Texas) offers a six module course, which is taught by a combination of veterinarians and chiropractors, along with a lawyer for ethics and legalities. These modules are offered one week (Thursday through Sunday) for six months totaling 204 hours. They are divided up between different regions of the body such as sacro-pelvic, cranial-cervical, thoraco-lumbar and extremities. The program can provide continuing education hours in qualified states for both chiropractors and veterinarians. (Parker University)

Healing Oasis Wellness Center offers a 226 hour veterinary spinal manipulative therapy certification program to both chiropractors and veterinarians in Sturtevant, WI. This school is accredited through the U.S. Department of Education since 1999. In addition to the spinal manipulation course, this school also offers massage and rehabilitation program, as well as an advanced neurology certification program. This program is also taught by veterinarians and chiropractic physicians.

The final school is Options for Animals College of Animal Chiropractic. Options for Animals College of animal chiropractic, was established in 1988, with a foundation in integrating traditional veterinary medicine with animal chiropractic. This is currently the only school in the U.S. that is approved by the AVCA and the International Veterinary Chiropractic Association (IVCA). The courses also follow the same six week module system, as the other two schools. This program also offers advanced training courses in chiropractic, along with Sacro-occipital, Applied Kinesiology, Logan quadruped, and Activator techniques. (13)

In Australia, they have created a separate training program for veterinary chiropractic. In this degree the veterinarian and or the chiropractor are required to attend a separate school for animal chiropractic training. The three year post graduate program offered there is a Masters of Chiropractic Science program, once the first professional degree is acquired in chiropractic, osteopathic or veterinary medicine. In this program the professional gets a much more in depth training in both fields of veterinary and chiropractic medicine.(1)

Animal Chiropractic Evaluation

The chiropractic exam for animals is very similar to the chiropractic exams on humans. The evaluation starts off with a complete history of the chief complaint. (13) The patient is then evaluated for posture, and conformation or structure. The chiropractic exam then focuses on the static and dynamic palpation of the spine and extremities of the animal. Each segment of the spine is evaluated for asymmetries, restrictions, subluxations, and changes to the surrounding soft tissue structures. (4) A physical exam is also an integral part of the evaluation of the animal, because it is used to determine if there are any comorbid conditions contributing to the chief complaint (11), the motion of each segment is evaluated before and after the adjustment. The segmental dysfunction of a joint may be due to capsular fibrosis, effusion, or inflammation of the joints between vertebrae, whereas the regional fixations may be due to soft tissue adhesions, muscular contractures or protective muscle spasms. (5) A neurologic exam is needed to rule out traumas, infections, or toxins. An orthopedic

exam is useful in determining extremity problems. (5) Other exams such as radiographs, blood screens and further diagnostics may be required before a chiropractic adjustment is performed.

Chiropractic Treatment

The chiropractic adjustment offers a unique therapeutic service that is not typically utilized in a veterinarian clinic. Most of the techniques used to adjust animals are adaptations of the techniques used on humans. The adjustment involves the practitioner applying a rapid controlled force through a specific joint of the body to produce the desired effect to the area, which is usually to increase motion in an area or to reduce pain. (13) The animal should be monitored following an adjustment as the body adapts the new position of the bone from the treatment. The adjustment activates certain receptors in the joints that control balance and position sense, known as mechanoreceptors and proprioceptors. (5) The adjustment is easier to achieve if the animal is relaxed, because the amount of force needed to perform the adjustment is related to the amount of resistance the surrounding musculature is providing. If the animal is not relaxed, there is a risk of causing injury to the practitioner or the animal. (4) In some cases, as in dogs, it may be recommended to apply a muzzle to prevent injury to either party involved. (11)

The adjustments can usually be performed while the doctor is on ground level. However, in some cases the doctor may have to use an elevated surface to be able to achieve the correct line of drive for the adjustment, as is the case with horses. (4) It is

also recommended that there be as little environmental distractions in the immediate area of the adjustment, to allow the doctor to focus on what the animal is doing and not what is going on around them.

The frequency of the adjustments depends on the condition being treated, chronicity of the condition, age, comorbid conditions, and structural anomalies, etc. (11) The acute conditions tend to respond quickly to chiropractic care, while the chronic conditions require more adjustments, and rehabilitation. The practitioner will recommend how often the animal should be treated. (5) After the adjustment, the doctor may recommend the animal be rested for a day, then return to normal activities.

Complications

The most common complication of the adjustment is usually soreness for one to two days, in the area of the adjustment. (11) If the animal experiences pain lasting longer, the practitioner should perform exam with possible referral or physical therapy exercises. In some uncommon cases, the animal may get an exacerbation of the chief complaint or worsening of symptoms after the adjustment. Most complications after the adjustment happen within the first six to twelve hours after the adjustment, with the effects lasting twenty-four to forty-eight hours. (5) In the case of an uncommon complication, the animal should be re-examined with recommendations for appropriate follow-up care. In the cases that conservative medicine does not work, the animal should be referred to a more aggressive form of diagnostics and treatments. (4)

Causes of Subluxations

The incidence of subluxations in animals seem to be lower than in humans, possibly due to the even distribution of weight over the four extremities instead of one. However there does seem to be a higher incidence in animals, like dogs, that wear collars especially on walks in the cervical spine. Another cause of subluxation, could be the breed itself, the breeds are designed for a certain look and characteristics, not based on structural soundness of the animal. Obesity may also play a role, as in humans, the increased weight is distributed throughout the body in different ways and may affect the joint differently causing subluxation. If a dog is crated for long periods of time and are not allowed to move freely, the immobility may cause subluxations to occur. (11)

Indications

There are several indications for chiropractic care for the animal population. The animal may exhibit neck or back pain upon palpation. A common area for subluxations in dogs is in the neck due to the collars they wear while on walks with their owners. The action of repetitive pulling and uneven body mechanics often leads to subluxations. (11) Another way to determine if an animal should get an adjustment is to watch the animal walk. The gait may become uneven or altered with the presence of subluxations. (5) Maintenance care for animals is another indication for chiropractic care. With maintenance care the animal receives occasional adjustments to make sure the central nervous system is communicating effectively with the remainder of the body. (13) Conditions that are not responding to conventional care may be another indication that conservative care may be an option, since these conditions are chronic and difficult to

diagnose the cause. (5) Animal chiropractors may also be able to treat soft tissue injuries with different techniques like myofascial trigger point therapies, when chiropractic adjusting is contraindicated. (4)

Contraindications

The contraindications for chiropractic care are dependent on the condition involved. There are relative contraindications, which are reviewed by a case by case basis for treatment. Whereas, absolute contraindications are those disorders that chiropractic care are not to be utilized. (13) Some relative contraindications include metabolic disorders, neurologic diseases, and degenerative joint disease. These relative contraindications need to be fully worked up by the attending physician to get an understanding of what disease processes are going on, the severity of the conditions, as well as where the disease is presenting in the body. Some absolute contraindications for care include fractures, neoplasia, infections, toxins, and any disease requiring immediate surgery or immediate medical attention.(4) There may also be cases, when the animal can be adjusted in an unaffected area distant from the area of concern. (8)

According to Dr. Kamen, an adjustment should not be performed if it will cause harm to the patient or the doctor as a general rule, but he does include several specific contraindications in his book "The well Adjusted Dog." An example from his book, never adjust a fracture, or a bone near a fracture for risk of displacing the fracture and causing more damage and pain to the animal. Another recommendation from Dr. Kamen, is not

to adjust an animal that had recently undergone a major trauma such as a fall or accident, these animals should be cared for by their veterinarian to rule out any serious trauma. Also, any adjustment that puts the doctor at risk for injury, as is the case when working with a fractious animal. These are just a few of the examples put forth in Dr. Kamen's book.

Ethics and Laws

The laws regarding animal chiropractic vary from state to state. Most states do allow chiropractors to adjust animals, but the requirements for adjusting vary from state to state. The laws do change from time to time so it is better to know the state law in which the chiropractor practices. (10) The AVMA has provided states with special provisions regarding CAVM (Complementary and alternative veterinary medicine), known as the 2003 AVMA Model Veterinary Practice Act. In this act, the AVMA defines CAVM practices as "Complementary, alternative, and integrative therapies" means a heterogeneous group of preventive, diagnostic, and therapeutic philosophies and practices, which at the time they are performed may differ from current scientific knowledge, or whose theoretical basis and techniques may diverge from veterinary medicine routinely taught in accredited veterinary medical colleges, or both. These therapies include, but are not limited to, veterinary acupuncture, acupressure, and acupressure; veterinary homeopathy; veterinary manual or manipulative therapy (i.e., therapies based on techniques practiced in osteopathy, chiropractic medicine, or physical medicine and therapy); veterinary nutraceutical therapy; and veterinary

phytotherapy.” The AVMA also includes the CAVM practices under the practice of veterinary medicine, which requires consent from the owner before performing the therapy and legal ramifications for any harm done to the animal under the definition of veterinary medicine. The AVMA also recommends that the animals own veterinarian should be the one to consult with the chiropractor for treatment of their patient.

As stated before, each state regulates its own laws regarding CAVM practices. About 20 states have adopted the AVMA model, under the term of veterinary medicine. While another 20 states have enacted specific exemptions for therapy, such as referral or direct supervision, and are not considered veterinary medicine. For example, the states of Arkansas, Missouri, and Michigan all require direct supervision for chiropractic adjustments, given by a licensed chiropractor. Whereas states like Maryland and Massachusetts have no specific rules regarding animal chiropractic. And still other states like Kentucky, Kansas, and Iowa, include animal chiropractic into their definition of veterinary medicine as described by the AVMA. (2) These services generally have to be performed by a licensed veterinarian or a licensed chiropractor, but it does not state in the laws that the adjustment has to be performed by a person receiving additional training than the requirements for each degree.

Debate

The major debate regarding animal chiropractic is who should be allowed to practice and perform the chiropractic adjustments. The chiropractic profession does not think that veterinarians understand the art, philosophy and the science of chiropractic.

The veterinary profession believes that chiropractors have not been trained in the areas of animal anatomy, diseases or physiology.⁽⁷⁾ This poses the question of whether or not animal chiropractors should be required to attend further schooling to understand the other side of the debate to provide the animals with the best quality of care possible. Post graduate training seems to be a compromise in both groups.

Another area of contention for the veterinary profession is the lack of data in regards to how the adjustment works, the benefits of chiropractic, and randomized controlled studies. The research is current in human literature and controlled studies, but the specific techniques vary so much that the veterinary profession has not been able to recreate and perform the same results. The research may also be difficult to understand for a person not specifically trained in either profession, since the results, definitions, and application of therapy is so philosophically different than what veterinarians are educated in.

As Dr. Jewell stated "The formal study of these complementary and alternative modalities should not be taken, or looked upon, lightly....Conventional paradigms are challenged, and replaced, but not without a great deal of professional and personal soul searching and frustration," in regards to chiropractic from a veterinarians viewpoint. Dr. Jewell believes that veterinarians and chiropractors are trying to provide the patient with the same goal of maximizing health for the patient, regardless of how it is achieved. In stark contrast a report about pain management guidelines from the American Animal Hospital Association, "although chiropractic intervention occasionally has occasionally been used to treat chronic pain, chiropractic methods potentially can cause injury through the use of inappropriate technique or excessive force. Currently there are no

clear standards for when chiropractic intervention should be applied or who is qualified to use chiropractic manipulations.” This statement, also from a veterinarian demonstrates another extreme of this debate, which is not an opinion in favor of animal chiropractic. This same sentiment is presented in the papers from Keating and Ramey stating that the claims of pain relief, prevention of some diseases, and so forth are not justified.

Future of Animal Chiropractic

The future of animal chiropractic is very promising at this time. The medical field has begun to accept human chiropractors into mainstream medicine in North America, and placing them into hospitals and pain management clinics. The acceptance of the medical field will validate the profession further allowing the veterinary profession to accept chiropractic into their treatments. These principles and ideas have been accepted readily in most other industrialized nations besides in the United States. The veterinary students have increasingly shown interest in learning more about veterinary chiropractic, especially since they get no exposure to chiropractic in their course studies.

More research will be required to gain further acceptance by the veterinary field and the general public. The research should be focused on more randomized controlled studies with larger sample sizes, rather than the current case histories and studies. This increase in research will allow the schools to become more specialized and proficient at teaching veterinarians and chiropractors the field of animal chiropractic.

Conclusion

Animal chiropractic is an emerging field in the arena of veterinary medicine. A somewhat new practice, it seems to be growing in popularity for owners to choose an alternative treatment for their animals. There will continue to be a lot of debate concerning animal chiropractic until proper education can be provided to the individuals involved. A contributing factor in this goal is the acceptance and recognition of the education and schooling provided to the individuals, who seeks out higher education from their professional degrees. The additional schooling does seem to be necessary due to the lack of knowledge and understanding about what the other is taught in school. Currently in their core curriculum of their respective schools, the chiropractor does not receive any training in the anatomy or physiology of animals, while the veterinarian has not received any training in the art, science and philosophy of chiropractic.

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