

Osteopathic Manual Therapy in the Veterinary Practice

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Establishing treatments for patients can be challenging despite all that modern animal medicine has to offer. After much time spent in the general veterinary practice setting it has become evident that there is a significant lack of alternative pain management and corrective therapies being utilized especially for senior animals. Alternative therapies made accessible through a practice not only benefits patients but pet owners and veterinarians as well.

Osteopathic manual therapy can be applied in the general practice setting where it may be used in conjunction with traditional medicine or as an alternative therapy to offer improved quality and greater chance of successful treatment. “Combining integrative medicine and rehabilitation, for instance, can often provide effective, nonsurgical options for patients with neurologic and orthopedic ailments” (Robinson, 2022, para. 3).

Research

Canine and Equine Statistics

Our canine and equine companions suffer from many different musculoskeletal diseases with arthritis being one of the most common in both horses and dogs (Lee et al., 2021; Baccarin et al., 2022). While they are different species of animal, the similarities in effects of arthritis and other musculoskeletal diseases on the body can be appreciated. Age-related degeneration and overuse are key risk factors. Both equines and canines may experience lameness, reduced mobility, and pain due to varying diseases.

“Osteoarthritis (OA) affects about 90% of dogs > 5 yr of age in the United States, resulting in reduced range of motion, difficulty climbing and jumping, reduced physical activity, and lower quality of life” (Lee et al., 2021, para. 1). With such an overwhelming amount of dogs affected the options for pain management should be reflected and not left to just traditional pain

medications alone. Certain breeds are also at a higher risk for musculoskeletal issues such as large dog breeds like Great Danes and German Shepherds are predisposed to hip dysplasia, while smaller breeds may experience conditions like patellar luxation (Barker & Jones, 2016).

Humans have used alternative therapies and osteopathic medicine for decades but has not yet been widely explored in the animal field (Russell, 2020). Aside from senior canines, with many dogs being working or competing animals the same alternative options should be more utilized and accessible as they are in human athletics.

“One of the main causes of lameness and, therefore, failure in equine athletes is joint disease, and osteoarthritis (OA) usually follows the athletic career of many horses in different sports” (Baccarin et al., 2022, para. 2). Horses are statistically similar to dogs with osteoarthritis being a leading cause of joint disease. Equine companions are used in many ways, sometimes with high impact and stress on the entire body. Working and performance horses are among the most susceptible to injury. “Researchers conclude that show horses competing in specific sports are at greater risk of injury at specific anatomical locations than horses used for general purpose riding” (Kane, 2014, para.20). The need for proper care is evident to maintain not only performance horses but those used for light work and retired senior animals as well.

Common Treatments

Modern veterinary medicine has much to offer in the way of medications and specialty care especially for dogs however the amount of holistic, non invasive options are still limited. In the small animal field specialty care similarly for humans, ranges for example, from neurology to dermatology and many in between. Many areas have access to veterinary surgeons and even orthopedic surgeons however all of these options can be invasive and very costly while also acknowledging that these services are necessary in some cases. From personal experience in

practice, it was noted that many dogs are examined everyday in clinics for musculoskeletal issues and traditionally for minor, non-emergent issues, medications are prescribed.

“Non-steroidal anti-inflammatory drugs (NSAIDs) are generally used as the first line of defense against the pain of OA” (Llera et al., 2023). NSAIDS are also used for a variety of issues dealing with inflammation somewhere in the body, not just musculoskeletal. Steroids and other non steroidal medications are widely used for varying illnesses but as with NSAIDS, they also come with their own set of side effects. While medications can be a great option in dogs, no other additional treatments are typically offered in conjunction or attempted prior to placing an animal on medications.

Similar treatment options are available for horses as in dogs and so NSAID use is often the first recommendation for arthritic pain as well as some other medications. “NSAIDs are a standard treatment for horse arthritis and can be given orally or injected into the joint. The most common NSAIDs used to treat horse arthritis are phenylbutazone (Bute), flunixin meglumine (Banamine) and ketoprofen” (Jono, 2023, para.40). Joint supplements such as chondroitin or glucosamine are commonly used in addition to traditional medications as well and used along with alternative therapy such as osteopathy the desired results may be even more successful.

Corticosteroids are another key player in traditional equine musculoskeletal medicine. These anti-inflammatory drugs, including dexamethasone and prednisolone, can provide quick relief for acute conditions like tendonitis or joint inflammation. However, they are typically used with caution as well due to potential side effects and a risk of exacerbating certain conditions with prolonged use (Edwards, 2023).

There are also other alternative therapies aside from osteopathy utilized for both horses and dogs including acupuncture, chiropractic care, laser therapy, massage therapy, and herbal

medicines. These therapies are also considered a more holistic approach like osteopathy and come with minimal side effects. However some of these mentioned such as acupuncture and herbal practitioners are still more widely available than osteopathic therapy.

Arguments

Benefits of Osteopathy

Thus far in personal research and case studies the findings overall show that both canine and equine patients benefit in some way from osteopathic treatment. While some were more significant than others it can be noted that all show more fluid movement post treatment in various areas of the body. The younger animals did recover quicker in most cases but senior animals treated do show positive improvement as well. Senior canine patients diagnosed with arthritis, examined and treated multiple times during personal case studies, show great improvement in mobility with consistent osteopathic treatments in combination with veterinarian prescribed medications. Equine patients examined for personal case studies, younger and senior, also showed improved mobility especially those with chronic lameness. “Although it’s common practice in stables across Europe and is among frequently recommended complementary therapies for back pain in North America, there’s little scientific evidence that osteopathy is effective in horses, says Haussler. One study on more than 50 horses with chronic lameness or gait abnormalities revealed that osteopathy led to improvement in most cases, even six to 12 months after” (Briggs, 2022, para.23). Despite some controversy the results of some studies like the aforementioned, favor the results of osteopathic treatment especially in horses.

The evidence in published studies further proves the efficacy of osteopathic therapy however it is still extremely limited in comparison to traditional medicine studies. Although arthritis is one of the most common issues in companion animals, osteopathic therapy would

benefit many patients with various ailments. Observed from work experience in a small animal clinic, there are a significant number of patients seen with idiopathic issues that are not necessarily found with traditional lab work or radiographs. One of the most common issues seen for example are lame dogs, with weight bearing of different degrees, that have clear radiographs and no soft tissue swelling or heat and so have no obvious explanation yet the animals are clearly lame. The patients are very often sent home with medication for pain to wait and see if the issue resolves on its own and while some do, others do not. These unresolved cases are generally sent to a specialist, such as an orthopedic surgeon, as standard protocol rather than an osteopathic exam prior to higher speciality services. Many of these sorts of patients could benefit from osteopathic treatment if cleared by the veterinarian prior to surgical or specialty consultations in that they may be treated less invasively. While for other patients surgery may be necessary, osteopathic therapy can also be of use in the rehabilitation process to ensure mobility is returning safely and normally post surgery.

There are many patients with varying diseases in all areas of the body, either idiopathic or of known origin, that may be helped with osteopathic therapy. “Osteopathic patients are receiving osteopathic care and reporting improvements for other non-musculoskeletal complaints [11,12]. Indeed, OMT was proved effective on conditions and disorders beyond the sensory and motor system, including the reduction of hospitalization length in a large population of preterm infants [13,14], effects on anxiety and fatigue in people with multiple sclerosis [15], and on autonomic and neuroendocrine responses [16]” (Tramontano et al., 2020). This study’s results, although performed on humans, further acknowledges the need for osteopathic care especially in the veterinary field where so often the focus is not on the body as a whole but rather targeted treatment. When thinking about the animals in the sense that all body systems are working

together in unison it may give the insight needed to pinpoint underlying issues in undiagnosed cases. “Osteopathy also looks at the whole animal in terms of endocrine and immune function. The autonomic nervous system needs to be in balance for these functions to operate maximally” (Groves, 2023, para.3).

Another example of a common issue seen in veterinary practice is neurological issues that do not present with any obvious reason. While referral to neurology is important, an osteopathic exam could be beneficial. One of the primary challenges in dealing with idiopathic neurological problems is the uncertainty surrounding the root cause. Conventional diagnostic methods may not always reveal the source of the neurological symptoms, leaving veterinarians and pet owners frustrated. Osteopathy's holistic approach can help fill this diagnostic gap in some cases. Practitioners thoroughly assess the pet's musculoskeletal system, looking for subtle signs of dysfunction, misalignments, or restrictions. By working to correct these issues, osteopathy works to alleviate any mechanical pressures or restrictions that may be affecting the nervous system. This can lead to improved nerve function and reduced neurological symptoms in some cases. Some patients are truly in need of a specialist such as neurology and are diagnosed with more severe issues. Together specialty veterinarians can work with osteopath practitioners with the goal of a faster recovery for the animal.

With just a few mentioned, the number of subcategories within the veterinary field are many that could be aided by integrating osteopathic care as common practice in combination with traditional medicine.

Prophylactic Care

Preventative care is the basis of most veterinary wellness visits but are generally focused on vaccines and traditional annual services. Although traditional veterinary wellness is very

important, rarely are alternative therapies discussed at these appointments for prophylactic health. “ACL (CCL) injuries/tears can be potentially prevented if early treatment of spay/neuter adhesions are addressed to normalize SI movement. The fibula is involved in this pattern of susceptibility” (Taylor, 2020). Countless injuries have the possibility of being prevented if more clients sought osteopathy as routine care for their pets. Human athletes have many ways in which they maintain good body condition in order to prevent injury even as simple as stretching before a workout. The majority of pet owners do not stop to think about warm up before throwing a ball with their dog for example. From previous experience in practice the most common injury seen from dogs catching toys or maneuvering quickly, often in twists and turns, was cruciate ligament tears. When triaged, owners usually state the dogs had just come from inside or were resting and then proceed to immediately run to catch a toy or make some sort of quick movement, without any warm up or stretch. Of course this type of injury can happen regardless however the number of cases with similar explanations can not be ignored. Osteopathic techniques, such as joint mobilizations and soft tissue manipulations, promote proper range of motion, reducing the likelihood of injuries during physical activities.

Horses obtain similar injuries during activities and may not always have an issue visible to the owner's eye that may be detected by a trained osteopath. Often owners are presenting to a veterinarian after the horse has already become lame or clinical rather than using a preventative approach. Incorporating osteopathy into a horse's routine can aid in maintaining balance and coordination and by addressing any underlying asymmetries, osteopathy can help horses move more evenly and avoid overcompensation, which is a common cause of injury.

Unfortunately the standard protocol in clinics is to refer to an orthopedic surgeon but generally without any discussion about how to help prevent this type of injury in the future or

how the opposite limb and body will now be affected. The need for education and use of osteopathic therapy in athletic, working and senior animals is no different than humans but in human medicine alternative options are widely available.

Effects of Chronic Medication Use

If the effects of disease and illness can be lessened or avoided using osteopathic treatment, the need to start chronic medications may also be reduced. With information gathered over years of working in a clinic it can be noted that the use of common chronic medications as discussed like NSAIDs and steroids can lead to internal organ instability over time. NSAIDs can lead to gastrointestinal problems, including stomach ulcers and digestive issues, which are a significant concern in both canines and equines. Steroids may cause excessive thirst, increased urination, and appetite changes. Prolonged steroid use can weaken the immune system, making animals more susceptible to infections. Other side effects of steroids may include weight gain and muscle loss. A common type of case seen in practice is senior, arthritic animals that also have chronic kidney disease or liver disease that can not be placed on NSAIDs. “The majority of OA and CKD are acquired and both conditions are more prevalent in older dogs. The potential nephrotoxicity of NSAIDs however make their use problematic in dogs with CKD” (Grauer, 2008, para.1). The dilemma is finding the best pain management protocol without increased risk of kidney and liver damage and osteopathic treatment would be ideal in these cases.

Osteopathy supports the animal's immune system by improving circulation and lymphatic drainage. Adequate blood flow and efficient removal of waste products enhance the body's ability to fight off infections and diseases. By promoting optimal physiological functions, osteopathy creates a good foundation for the immune system to operate effectively. By adopting osteopathy into regular veterinary care we may lessen the chance patients are affected by disease

altogether. All illness of course cannot be prevented but if osteopathic treatment can alleviate symptoms or prevent some amount of injury this is beneficial for all canine and equine patients.

Applications

Integrating OMT Into Practice

Making osteopathic therapy an accessible service in veterinary clinics would allow veterinarians to more easily recommend and refer patients in house rather than a separate facility. Clients would be more likely to participate if the treatments could be performed at their regular office with staff they are familiar with and these treatments may be offered at annual appointments as maintenance or sick visits for those presenting with an injury. This leads to the discussion of whether veterinarians should be taught alternative therapies or have it remain in a separate category outside of traditional medical training. Different areas of the world have varying opinions on the topic and remain a controversy in the U.S. especially and the practice of alternative therapies in veterinary medicine is not taught in most DVM programs. “Holistic medicine was not taught when many of us were in veterinary school. As a result, practitioners interested in holistic medicine had to learn on their own, often through mentors and few resources” (Messonnier, 2017). Given the information we have as professionals in the animal care field, it is pertinent that we learn as much as possible about overall body health and balance. Osteopathic therapy is an excellent way to begin to understand more than just treating one part of the body at a time with traditional medicine and look at the animal as a whole.

There has fortunately been progress in the veterinary field in the U.S., “Anaïs Musso, animal osteopath, has joined LSU School of Veterinary Medicine and will make available animal osteopathy treatments to patients through LSU Vet Med’s Integrative Medicine and Equine services as a complement to our other medical services” (Sarr, 2022). Adding this service not

only to a teaching hospital but making it accessible to patients and veterinary students is a start to making alternative therapies more mainstream.

Logistically having a trained osteopath in the same facility as the veterinarian would be ideal. In-house therapies enable better coordination and communication between practitioners, leading to a more effective approach to patient care. It offers a greater degree of control over the quality of care and treatment options, ensuring compliance with clinic standards and ethical practices. In house alternative therapy can set veterinary clinics apart by offering a comprehensive, integrated, and patient-centric approach to animal health. Also implementing a shared record-keeping system where both veterinarians and animal osteopaths can access and update patient records would make the most efficient system. This would allow the entire healthcare team to be well-informed about each case.

Educating the Owner

Educating clients on overall body health is key in preventing canine and equine companions presenting with poor body conditions. With some rising interest in alternative and complementary veterinary treatments, it's essential for pet owners to have a clear understanding of what animal osteopathy entails and how it can positively impact the health and well-being of their pets. Obesity and untreated arthritis have been the most common issues noted while working in practice. A majority of these cases were not necessarily due to neglectful owners but those who simply didn't know subtle signs of pain or discomfort. In many cases while in practice owners would present with a pet and state that, for example, an animal is lame however they haven't been vocal or yelped. An owner's perception of what appears painful to them isn't always the correct assumption and it is our job as animal professionals to help them understand what is actually going on and how to best look for future signs of discomfort.

If these conversations on what to look for are started early in the pet's life, owners may be more inclined to pay attention to a pet's overall health. Veterinarians have lengthy client conversations with first time owners or first puppy visits for example, covering numerous topics on general care and what to look out for. The same idea can be applied to osteopathic care and ensuring discussions are had regarding future possibility of disease particularly musculoskeletal issues. Discussing integrating osteopathic treatment into routine care should begin in the veterinary clinic setting. The information is then being relayed to the owner by a trusted medical professional and may be received better. However, owner compliance is often an issue in the veterinary field due to many reasons with cost and time being the top complaints. Osteopathy can be a non-invasive and less costly option than specialist visits in some cases. Providing this knowledge empowers pet owners to explore holistic treatment options and collaborate effectively with both osteopathic practitioners and traditional veterinarians to ensure the best possible care for their pets.

Educational materials in a veterinary clinic are also invaluable for pet owners seeking to understand and care for their animals. Visual aids, such as anatomical models and X-rays, help explain medical conditions and procedures. Digital resources, like informative websites and instructional videos, further enhance the client's knowledge base. If these services are done in conjunction with one another in the same facility, both osteopath and veterinarian have access to each other's materials and can create a more cohesive explanation for the client.

Closing Statements

It is our responsibility as animal professionals to ensure we are giving animals the best possible care and osteopathic therapy is one among many that aid in this, especially for our canine and equine patients. The statistical evidence along with the studies discussed, stress the

need for osteopathic care in the veterinary field. Senior and arthritic patients, among the most in need, will benefit greatly from further integration of alternative therapy in the clinic setting. With some veterinary schools already moving forward offering osteopathic therapy, this will hopefully inspire others to do the same. Overall, the benefits of animal osteopathy in the veterinary clinic are evident in its ability to offer additional therapeutic options, reduce reliance on medication and surgery, and promote the overall well-being of animals. As awareness and understanding of this holistic therapy continue to grow, it has the potential to become an indispensable part of modern veterinary practice, providing more comprehensive and patient-focused care for our animal companions.

Reiterating that although there are some practicing osteopaths, the need for this service to be accessible and feasible for clients, is instrumental in helping as many patients as possible. The collaboration between traditional veterinary medicine and osteopathy ensures a comprehensive and well-rounded approach to animal healthcare. It allows for the best of both worlds, combining the scientific background of conventional veterinary practices with the hands-on, non-invasive techniques of osteopathy. Doing so in the practice setting will allow for the most effective work for everyone involved but most importantly the animals.

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