ANIMAL REHABILITATION

SPECIAL INTEREST GROUP

President's Message

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ANIMAL REHABILITATION PROGRAMMING AT CSM

If you are interested in learning more about animal rehabilitation and how physical therapists integrate into this unique area of practice, then please attend the 2017 APTA Combined Sections Meeting in San Antonio, February 15-18. The ARSIG Business Meeting is scheduled at 7:00 a.m. on Thursday, February 16th to discuss various topics of interest in animal rehabilitation pertaining to both current members, nonmembers, and students. The Business Meeting will immediately precede a 2-hour education programming session on manual therapy for the canine cervical spine. These outstanding events offer excellent opportunities to network with experienced animal practitioners working with both equine and canine clients.

PRACTICE ANALYSIS UPDATE

You should have already received a web link to the newly revised ARSIG Practice Analysis survey. The purpose of this survey is to assess the current state of animal practice by physical therapists and physical therapist assistants in the United States. Therefore I ask that you please complete the survey as soon as possible to assist the future success of the ARSIG. The survey takes approximately 60 to 90 minutes to complete.

CALIFORNIA VETERINARY MEDICAL BOARD

The California Animal Rehab Task Force continues to move forward with negotiations leading to potential legislation in 2017. As noted in the prior President's Message, a Gofundme campaign has been organized to support the efforts of the task force. If you wish to donate to the fund you may do so at the following link: https://www.gofundme.com/mqzmtu3g.

POLITICAL CAVEAT-DEMYSTIFYING VETERINARY SUPERVISION OF PT ANIMAL PRACTICE

We have all heard the following argument echoed repeatedly by regulatory advocates, "In the name of public safety, PTs treating animals should be directly supervised by veterinarians." But have you ever pondered the rationale, or should I say lack of sound rationale, supporting this impractical statement? Supporters of direct supervision claim that physical therapists (PTs) lack sufficient education to recognize and/or respond to physical conditions or abnormal behaviors that may require medical care. This assumption however, is false.

While it is true that acquiring a basic certification in animal rehabilitation does not compare to a degree in veterinary medicine, what is routinely absent in dialogue is the fact that prior to completing a certificate program, licensed PTs have "already" acquired an advanced clinical doctorate degree in rehabilitation allowing for direct access with human clients, a privilege now available in all 50 states. The education physical therapists acquire in academic programs is replete with competencies to recognize and respond to medical signs and symptoms presenting as yellow or red flags. In addition, all PTs are well educated to know when it is appropriate to consult with a medical doctor when clinical signs and symptoms present beyond one's scope of practice. Transferring this aptitude of clinical reasoning to animal rehabilitation is absolutely within the scope and ability of a physical therapist. A quick analogy comparing human to animal care may assist the reader in understanding this extremely important point; a point that needs to be highlighted during any political debate on PT competencies in animal rehabilitation.

In human practice, PTs work in a variety of settings including acute care hospitals, skilled nursing facilities, and outpatient clinics to name a few. Aside from PTs, the number of medical personnel immediately available to render care to patients largely depends on the "acuity" of services provided. For example, in hospital settings patients are more acute and medically unstable therefore requiring supervision and care from multiple health care providers. There is no doubt that having a human physician onsite, but not in direct line of supervision, is a necessity in acute medical settings. However, human clients who are treated in outpatient rehabilitation clinics are more medically stable and therefore can be safely and competently managed by physical therapists without the physical presence of other health professionals. This same model of collaborative care is not only possible between veterinarians and PTs, but has already been successfully implemented in several states.

In states where laws have already been enacted for PTs to practice animal rehabilitation, little to no debate was had over whether or not veterinarians should remain the primary care providers who "medically clear" patients prior to referral. In fact, no state has direct access laws for PTs to treat animals. Therefore, the real political question should be, *"What is the desired level of supervision believed necessary by the referring veterinarian as opposed to having this key issue predetermined by a state regulatory body?"* In other words, any regulatory language restricting PTs from practicing by medical clearance on animals is in reality a regulatory restriction on the capacity for veterinarians to think for themselves and render their own professional judgment.

Finally, when discussing direct vs. indirect supervision of animal care all PT practice models must be considered. Physical therapists who treat sporting dogs and equine athletes for example are generally working with medically stable clientele that sustain a variety of musculoskeletal injuries. In addition, many interventions are provided directly on-site at sporting events, or with equine, at privately owned barns. Any regulatory provision requiring a veterinarian to be onsite at all times during these encounters would not only be illogical, but completely impractical and financially unreasonable for both practitioners and owners alike. So please keep these political caveats in mind when negotiating with state regulatory bodies since most efforts to impose direct supervision laws on PT animal practice germinate out of personal self-interest and professional turf protection, as opposed to authentically protecting the public.

A NEED FOR NEW SCHOLARS

I am literally running short on persuasive arguments to entice SIG members to submit quality articles for publication in the

OPTP…but I will try once again. I need members to contribute articles for publication in the *OPTP*. As noted in past requests, I am interested in receiving materials on the following topics: (1) canine or equine nutrition; (2) updates on scientific evidence for any therapeutic physical agent including shock wave, laser, or dry needling, and (3) unique treatment techniques or exercise options for any given pathology or physical condition. A critical review of a current article of interest would also be an appropriate contribution.

CONTRIBUTORY ACKNOWLEDGMENT

In this edition of *OPTP*, Lisa Bedenbaugh offers a brief but important commentary on canine hip dysplasia. The article provides a summary overview of the pathology, followed by current research findings and treatment options. Lisa has been practicing canine rehabilitation for many years in Atlanta, Georgia, and gives generously of her time to the ARISG.

The Sweet Taste of Winter

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Treatment Considerations For Dogs With Hip Dysplasia

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Hip dysplasia (HD) is a term used to describe poor congruency of the coxofemoral (CF) joint. Hip dysplasia is characterized by a femoral head that lacks normal space within the acetabulum creating a less than optimal fit of respective joint surfaces. According to one study,[1] HD is the most common developmental orthopaedic condition in dogs, and usually presents in medium to large breeds. Although HD has a congenital relationship, expression of the condition is multi-factorial, including genetics, nutrition, conformation, and other environmental factors. Over time, poor joint congruency with HD will lead to increased intraarticular movement, friction, and degeneration, ultimately progressing to various levels of osteoarthritis (OA). The osteoarthritic joint will have associated sclerosis, pain, atrophy of the surrounding muscles, and generally some degree of lameness.

A study looking at the prevalence of HD at a veterinary teaching hospital revealed that 19.7% of purebred dogs and 17.7% of mixed breed dogs had signs of HD.[2] With an estimated 70 million pet dogs in the United States according to the American Veterinary Medical Association,[3] that correlates to over 12 million dogs with some degree of HD. Treatment strategies related to HD for the canine rehabilitation therapist are focused on relieving discomfort, maximizing painfree range of motion (ROM) in the CF joint, improving strength in the muscles surrounding the CF joint, and improving functional mobility. Skilled treatments may include manual therapy interventions such as joint mobilization, massage, stretching, and neuromuscular facilitation techniques. In addition, therapeutic physical agents such as low-level laser, electrical stimulation, heat/cold therapy, pulsed electromagnetic field therapy (PEMF), therapeutic exercises for ROM and strength, and aquatic/hydrotherapy interventions may also be beneficial.

Two studies found that the development and progression of HD was significantly delayed or decreased in dogs maintained at a lean body condition through caloric restriction as compared to litter-matched dogs with a higher body condition score.[4,5] It is therefore important for the canine rehabilitation therapist to educate clients on maintaining a healthy lean weight in dogs with HD since body mass is a controllable factor.

Other studies on dogs with HD have explored differences in muscle activation and gait patterns in comparison to normal dogs. In one study,[6] dogs with hip OA were found to have a loss of both hip flexion and extension, resulting in overall decreased functional ROM in the hip joint during the gait cycle. In addition, hip flexion in the OA dogs was found to occur earlier at the beginning of the swing phase, which was theorized as a desire to minimize the amount of time in weight bearing stance phase on the painful hip. In another study,[7] dogs with unilateral lameness demonstrated a decrease in peak vertical force on the lame side, but even dogs without lameness (but diagnosed with HD via radiographs) were found to show decreased ground reaction forces. Related to the study by Bockstahler,[6] Hicks and Millis[7] showed that a lame dog delays touchdown during initial stance phase, and has decreased force production during toe-off. Based on results from these two studies, therapists should focus on interventions to decrease pain in the affected joint(s), and engage dogs in therapeutic exercise to increase total stance time and stride length of the affected leg to maximize symmetry of motion during the gait cycle.

Finally, muscular activation in normal dogs compared to those with hip OA has also been studied. Vastus lateralis force in OA dogs was decreased during the transition from stance to swing phase, and was also decreased in comparison to normal dogs. The biceps femoris also demonstrated an overall decrease in activity (as compared to normal), however, the gluteus medius in OA dogs showed increased activity during the late swing and early stance phase (eg, expected pain may have led to increased muscle activity as theorized by the authors), but then quickly decreased during the stance phase. In the same study, different therapeutic exercises were performed (in sound dogs), and associated muscle activity was recorded. Vastus lateralis was activated more with cavalettis than with incline walking and incline walking was subsequently found to be better than walking on the flat for increasing gluteus medius activation.

Hip dysplasia is a common and often disabling pathology in dogs regardless of breed. Treatment options consist of medical and pharmacological care, in addition to structured rehabilitation techniques to reduce pain, improve ROM and strength, restore function, and increase overall quality of life. Canine rehabilitation therapists have the expertise and knowledge to address many physical limitations associated with hip dysplasia guided by current research and personal experiences with a goal to achieve positive quality outcomes.

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