

President's Message

Kirk Peck, PT, PhD, CSCS, CCRT, CERP

Combined Sections Meeting, 2019 - Washington DC

Another great year has been planned for the APTA Combined Sections Meeting in Washington, DC, January 23-26, 2019. The ARSIG Business Meeting will be held from 7:00 a.m.-7:50 a.m. on Friday, January 25th followed immediately by the two-hour programming session starting at 8:00 a.m. The ARSIG Educational Session for CSM is entitled, *“Manual Therapy For Equine And Canine Clients: Different Species, Same Concepts,”* Presenters: Kirk Peck PT, PhD, CSCS, CCRT, CERP; Sharon Classen PT, ATC, CERP; and Karen Atlas PT, MPT, CCRT. I sincerely hope to see you present in the wonderful District of Columbia come January.

ARSIG Membership

As of November 10, 2018, the ARSIG website indicated a membership total of 444 licensed therapists. The SIG has continually grown in numbers over the past several years. This is an excellent sign for long-term sustainability, but my fingers remain crossed that someday a magic number of 1,000 members will appear on the big screen upon hitting “search” in the web-directory.

Six Years Equates to 2190 Days!

Some might claim it was the best thing I ever did. Others might disagree. Either way, now that my term in office is over as ARSIG President, I can honestly say I would, without question, do it all over again if granted the chance. It has truly been an honor serving as an officer in an organization that I hold great passion for on many levels. I firmly believe that the future of physical therapy involvement with animal rehabilitation and fitness performance looks bright, especially upon witnessing the next generation of graduates expressing strong interest in expanding career practice options to include non-human clients.

It has now been 40 years since Ann Downer, BA, MA, LPT, published the 1st textbook (1978) in the United States on physical therapy for animals. The book was entitled, *“Physical Therapy for Animals: Selected Techniques,”* and of interest, the first comment in a book review of Downer's work stated, *“The need for a text which provides an introduction to the principles and techniques of physical therapy in veterinary medicine is significant.”*^{1(preface)} It is amazing how true that statement was in the late 1970s, and yet remains just as relevant today. Although several excellent text references have been published by various physical therapists over the past 10 to 15 years, an incredible void remains in the voluminous amount of knowledge yet to be shared in the practice of animal rehabilitation.

A Future Worth Dreaming - A Vision Worth Seeking

According to Merriam-Webster, the word “vision” may be defined various ways, but the one I believe applies most to evolving professional organizations is, *“The act or power of imagination; Unusual discernment or foresight.”*² In essence, vision is not just words crafted on paper to please a board of directors, shareholders, or employees, but rather it is clarity in expression of thought and

understanding that stems from a source of inspiration extending beyond the tangible.

Successful leaders have vision, or at least an ability to surround themselves with those who are capable of exceptional forecasting. It is my personal hope that in passing the torch of leadership to the next generation of elected ARSIG officers that a macroscopic vision for the future of the organization will continue on an evolutionary path that will ultimately integrate the competencies of animal physical therapy as an accepted component of practice within the profession on a national scale. Such a grand vision can be fully accomplished however only if the following conditions prevail: (1) Statutory laws and regulations in all 50 states must legally recognize physical therapy practice on animals; and (2) Accredited programs in higher education must be developed to support the practice of physical therapy on animals based on formally recognized standards, similar to the current competencies adopted by the Commission on Accreditation in Physical Therapy Education. Elaborating on the second condition, a vision for creating a formalized educational program for animal physical therapy was actually articulated 40 years ago.

In the preface of her text published in 1978 on physical therapy for animals Ms. Downer stated, *“The concept of total physical therapy for animals is not new, but the practice of it by a qualified physical therapist under a veterinarian is new. Still to come are college programs designed especially for training student to become animal physical therapists.”*^{1(pv)} So I challenge you, and all future great leaders who join the field of animal physical therapy...I ask that you not only believe in but also fully embrace a dream that a day will come when physical therapists are publically recognized as expert health care practitioners in treating not only humans, but animal companions as well. The time has come to see Ms. Downer's vision come to light.

REFERENCES

1. Downer A. Physical Therapy for Animals. Selected Techniques. *Can Vet J.* 1978;19(11):303.
2. Vision. Merriam-Webster website <https://www.merriam-webster.com/dictionary/vision>. Accessed November 9, 2018.

Contributory Acknowledgment

In this edition of *OPTP*, Jenny Jones, PT, MS, DPT, CCRT, submitted an educational case study on the topic of osteoarthritis in a 10-year-old Cattle Dog. It depicts the challenges and rewards of implementing a thorough plan of care in rehabbing a dog well deserving of expanding quality in life through improved physical ability. I congratulate Jenny on her contribution of sharing a snippet of wisdom and passion for treating the canine species.

"I was informed by authorities that my mother was a large Black Bear, but apparently my DNA test indicated otherwise. I'm just a little Chorkie."



Scout & Luna – Truly the Best of Friends!

Photo Courtesy of Kirk Peck

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Physical Rehabilitation in Severe Osteoarthritis: A Case Study

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Osteoarthritis (OA) can be a challenging condition to manage in the canine population. Conservative management of OA in veterinary medicine is often centered on pain management with nutraceuticals, nonsteroidal anti-inflammatory agents, and pain medications. It is now becoming more commonplace to take a multimodal approach, with the addition of physical rehabilitation along with acupuncture and laser therapy. Physical therapists can help patients regulate pain, improve muscle mass for joint protection, and maximize functional ability.

HISTORY

Rangler is an approximately 10-year-old neutered male Australian Cattle Dog who was adopted in May 2017. Rangler was found as a stray in a field, so his past medical history is unknown. Rangler was found to have severe OA in the left elbow as well as OA in the coxofemoral joints. Rangler was intact when found, then neutered when a nerve sheath tumor was surgically excised from the right hind limb. Rangler underwent electrochemotherapy at the onset of physical rehabilitation. The recommendations from the orthopedic surgeon included physical rehabilitation. Rangler began with acupuncture in June 2017 while waiting to begin physical rehabilitation in early July 2017.

Medications at time of evaluation (7/3/17): salmon oil, gabapentin 300 mg TID, Dasuquin SID, tramadol PRN, Galliprant 30 mg SID.

Environmental concerns: Rangler lives in a two-story home with tile floors, which causes issues with slipping. There are two other dogs in the home and Rangler also goes to doggy daycare. He is able to jump on/off furniture.

Subjective pain scores: 3/10 overall, 4/10 during activity, 6/10 after activity. Scores are based on client's observations of increase in lameness with and especially after activity.

Client goals: For Rangler to be pain free, happy, and active.

Physical Examination (7/3/17):

Body Condition Score = 5/9

Weight = 50.0 lbs

Orientation: BAR, friendly and affectionate, but history of mouthiness with past exams.

Other physical findings: Harness donned.

Posture: Showing internal rotation in right pelvic limb (RPL). Stands with RPL in mildly odd positions. Tail posture WNL. Able to sit squarely; when standing, shows only partial to non-weight bearing stance in left thoracic limb (LTL). Prefers to lie sternal with L carpus flexed.

Transitions: Independent with fair to good use of LTL.

Gait analysis: Stilted PL gait R>L, grade 2 LTL lameness with head bob.

Musculoskeletal exam:

Limb girth: TL L 32 cm, R 36 cm. Proximal thigh 43 cm bilaterally. Proximal calf L 21.5 cm, R 21 cm.

Palpation: Peripheral joints all WNL and non-effusive except left elbow severely thickened and mild-moderately painful. Right hip guarded at end range extension, improved with massage. Psoas comfortable bilaterally.

TL ROM: WNL except left elbow 90 degrees flexion with early hard end feel, 160 degrees extension with early hard end feel.

PL ROM: WNL

Spinal mobility: Moderately hypomobile with dorso-ventral (D/V) pressures in thoracolumbar spine, but no pain. Tail jack negative, cervical spine WNL.

Neurological exam:

Reflexes: LPL- 3+ patellar, 2+ sciatic/cranial tibialis. RPL- 1+ patellar, sciatic, cranial tibialis.

CP placing: TLs WNL, PLs intact and brisk, but placing wide bilaterally

Withdrawals: Present x 4

Hopping: Mildly delayed in PLs

Pain sensation: Present, not formally tested

Bowel/bladder function: Normal

Assessment (7/3/17):

Rangler ("Rango") is an approximately 10-year-old NM Australian Cattle Dog who has a referring diagnosis of elbow arthritis and hip pain. Rangler presents to physical rehabilitation with moderate atrophy of the left thoracic limb with moderate-severe left elbow restrictions, mild right distal hind limb atrophy, mild neurological deficits in the pelvic limbs, hypomobility in the thoracolumbar spine, and right hip pain. Rangler will benefit from physical rehabilitation to work toward improved strength and comfort of the left thoracic limb, improved spinal mobility and pelvic limb function, and overall improved exercise tolerance.

Goals (8 weeks):

1. Will demonstrate a 1/4 or better lameness score in LTL.
2. Will tolerate a day of daycare without an increase in LTL lameness.
3. Will have an increase in left thoracic limb muscle mass by 2 cm to demonstrate improved strength.

Plan (7/3/17):

Rangler will participate in physical rehabilitation once per week for 4 to 6 weeks, then potentially ongoing at some frequency to improve strength and mobility. Rangler's sessions will include manual therapy (myofascial release, joint mobilizations, stretching, soft tissue massage), modalities as needed, therapeutic exercise, balance and proprioception training, and gait training in the underwater treadmill. A home program will begin to help Rangler improve strength and ensure smooth progress towards his goals. At home pulsed electromagnetic field therapy would be of significant benefit to Rangler, either with an Assisi Loop or the Respond Systems Bio Pulse bed.

A home program was prescribed following review, including text and photos for triceps and biceps stretches, tail traction, high stepping, walking backwards, push-ups, and crawling under.

PSGAG injections were started (using generic ICHON) with rehabilitation sessions, following the loading dose weekly and maintenance monthly injections.

Treatment:

Therapeutic exercise:

Rangler has been attending physical rehabilitation sessions weekly since his evaluation in July 2017. His sessions initially did not include the underwater treadmill, as he was significantly fearful of the treadmill. We were able to quickly condition him to using the land treadmill and incorporated many dynamic balance exercises using both the land treadmill, physiorolls, and other equipment such as Cavaletti rails, memory foam mats, and balance discs (Figure 1 and 2). Rangler's sessions also include manual therapy to improve mobility and flexibility of the spine and extremities. The underwater treadmill was successfully added in February 2018 to reduce stress through the extremities and provide resistance for strengthening. Water wings are added to provide additional resistance to the LTL.

Manual therapy:

Myofascial release, including lumbosacral decompression with tail pulls, cross-hand releases to thoracic and lumbar spine. Trans-

verse plane releases at pelvic floor, respiratory diaphragm, and thoracic inlet. Compression through left elbow into shoulder followed by leg pull. Occasional rotational mobilizations to thoracolumbar spine, grade 3.

Modalities:

LASER - Respond Systems Luminex Vet, class 3b.

- 808nm 1000mW (1W) continuous wave probe
- 10 Joules/cm² to left elbow and bilateral coxofemoral joints
- 4 Joules/cm² to each segment of thoracolumbar spine per side, caudal to scapulae to sacrum

Clinical Progress:

- Minimal to no LTL lameness by the end of August 2017, approximately 8 weeks into rehabilitation.
- Able to complete a day of daycare without increase in lameness by end of August 2017.
- Improved left elbow range of motion comfortable without crepitus, 80° flexion with early hard end feel and 165° extension with early hard end feel. Girth measurements showed mild improvement (2 cm) in RTL.
- Current medications (5/29/18): ICHON injections monthly, Dasuquin, Galliprant, salmon oil, amantadine.

Clinical update 5/29/18:

Rangler continues with physical rehabilitation weekly to build and maintain strength in his limbs, as well as work on core strength to protect his spine. Rangler's mild proprioceptive deficits and mild hyperesthesia suggest that he may have some mild compressive disease process in his spine, but an MRI is not indicated at this time given his high level of function and comfort. He discontinued acupuncture at the end of July 2017 to focus on physical rehabilitation. Rangler is able to walk from his home all the way to the clinic and back, 1 mile each way, in addition to going to daycare and playing with housemates, all without lameness. Rangler thoroughly enjoys his rehabilitation sessions and has made huge strides in not only his physical strength and coordination, but his confidence and fear behaviors as well. He has a wonderful quality of life, and is maintaining his owner's goals of being happy, pain-free and active.

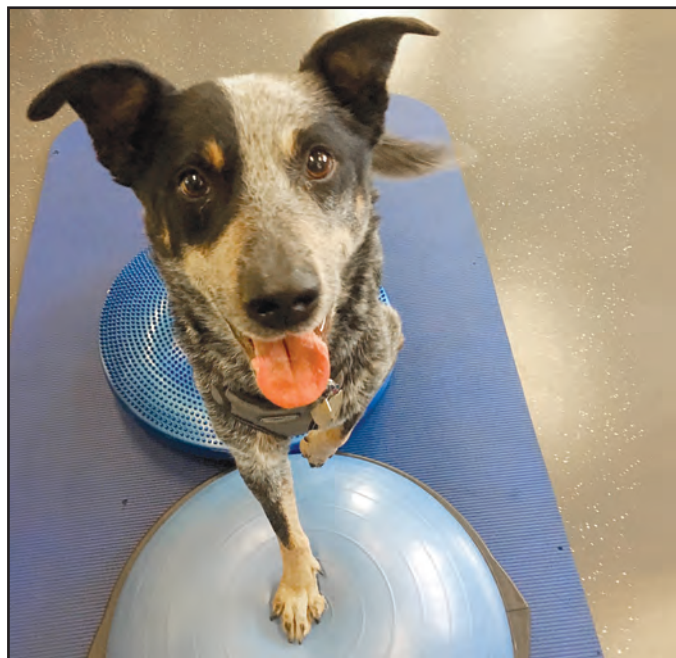


Figure 1. Bosu ball. Rangler developing balance and proprioception on a Bosu ball.



Figure 2. Cavaletti Rails. Rangler navigating Cavaletti rails for range of motion and strength.

(Note: Since writing this article, Jenny has opened her own canine rehabilitation center, Pawesome PT, in Stateline, NV).