Healing Oasis 2016 Convention Hampton Inn and Suites, Bluffton, SC November 10th – 13th, 2016

Synopsis of presentations: Alvarez, Leilani DVM, CVA, DACVSMR

Common soft tissue injuries (canine)

This lecture will cover basic review of muscle and tendon physiology and normal repair mechanisms for injury. We will also review how to diagnose these injuries and therapeutic options. Topics covered will include: iliopsoas strain, supraspinatus and biceps tendinopathy, medial shoulder instability, common calcaneal tendon tear, fibrotic myopathy, myofascial trigger points.

Goals:

- Gain basic understanding of muscle and tendon physiology and mechanisms of healing
- Learn how to diagnose: iliopsoas strain, biceps/supraspinatous tendinopathy, medial shoulder instability, common calcaneal tendon tear, fibrotic myopathy, myofascial trigger points
- Learn rehab strategies and treatments for the above conditions

Geriatric Rehab and Pain Management (canine)

Basic review of chronic pain mechanisms, evidence-based use of pharmaceuticals and safe administration of these medications for geriatric dogs. Review of non-pharmaceutical approaches for pain management in geriatrics. Practical solutions to everyday geriatric problems including: urinary and fecal incontinence, hindlimb weakness, recumbent nursing care.

Goals:

- Gain basic understanding of chronic pain mechanisms involved in geriatric dogs
- Identify best pharmaceutical choices and dosing for geriatric dogs based on current level of evidence
- Develop strategies for improving common geriatric and hospice care conditions

Geriatric and Sports Medicine Nutrition and nutraceuticals (canine)

We will overview nutrition requirement for geriatric and sporting sports. How to choose appropriate diets and how to formulate a balanced home-made diet. Review of currently available supplements and nutraceuticals for geriatric dogs.

Goals:

- Be able to calculate RER and MER for geriatric and sporting dogs
- Know basic protein and other key nutrient requirements for geriatrics and sporting dogs
- Know how to develop balanced home-made diet for healthy pet
- Gain understanding of currently available nutraceuticals for geriatrics and indications

Synopsis of presentations: Lowrey, Mitch DVM, CVSMT

Stifle & thigh injuries with emphasis on ultrasonography as an excellent diagnostic modality.

- In addition, we will focus on treatment, rehabilitation and prevention for these injuries.

Understanding the biomechanics of the equine neck and its role in locomotion.

We will discuss neck anatomy and common injuries to this region. Also, we will use ultrasonography and radiography as diagnostics along with treatment, rehabilitation and prevention.

- We will emphasize the usefulness of VSMT for treatment and prevention of injuries to the neck.

Synopsis of presentations: Orava, Corey DVM

Introduction to regenerative medicine

Lecture will cover terms commonly used in regenerative medicine so attendees can better understand this field (e.g. allogeneic, autologous, mesenchymal, autocrine, paracrine, CD marker, apoptosis, growth factor, cytokine...).

- Brief discussion of different therapies that comprise regenerative medicine (cells, growth factors, extracellular matrices)
- General overview of mechanisms of action (differentiation, immunomodulation, angiogenesis, anti-fibrosis, anti-apoptotic etc)

Not all stem cells are created equal

Much hype is given to the source of the cells being crucial. This lecture will discuss the major different types of stem cells: embryonic vs adult vs iPSC.

- Pros and cons for each cell type will be discussed
- Attention will be paid to adult stem cells since these are what are available to veterinarians (e.g. SVF vs BMAC, fresh cells vs cultured, bone marrow vs adipose-derived)

PRP vs. Stem Cells: What's the difference and why to select one over the other?

Platelet Rich Plasma (PRP) is a quantity of platelets found in a volume of plasma where the concentration of platelets is greater than that found in whole blood. Platelets and plasma both contain growth factors that stimulate all phases of wound healing. Stem cells work by a variety of mechanism: they can

differentiate into different tissue types; they can produce growth factors, they are immune-modulatory, anti-fibrotic, angiogenic.

 Factors influencing the choice of one modality over another include: price, capital equipment, invasiveness, evidence for efficacy

Regen med for musculoskeletal and neurological injuries.

This lecture will primarily focus on the use of regenerative medicine for orthopedic injuries (e.g. tendonitis, desmitis, fractures, osteoarthritis). Other goals include:

- Review work done with intervertebral disc disease, peripheral neuropathies as well as spinal cord injuries
- Where possible only studies involving target species (equine, canine, feline) will be reviewed

Stem cells and immune system.

Stem cells affect every system of the body, but none likely as much as the immune system. Unlike any single medication, stem cells can selective upregulate anti-inflammatory and simultaneously downregulate pro-inflammatory mediators. Goals:

 Discuss the complexity of the immune system and how stem cells interact with each of the effector cells

Regenerative medicine for GI

Stem cells have been used in veterinary medicine for over a decade. Almost of this usage has been for musculoskeletal conditions. This has led some to question the true utility of these cells. This lecture will focus on the use of regenerative medicine for non-orthopedic injuries.

- Cases dealing with acute and chronic liver / renal disease, diabetes and colitis will be presented.

Synopsis of presentations: Rivera, Pedro L. DVM, FACFN, DACVSMR Functional integration of VSMT and Rehabilitation to avoid further injury and improve on treatment outcome.

It is not uncommon for patients (canine or equine) to undergo rehabilitation therapy and treatment, be cleared to resume work loads, to be re-injured within days or several weeks. During these lectures, we will address:

- Pertinent neuro-anatomy that the doctor / therapist must keep in mind when developing the treatment protocol.
- The importance of addressing the functional neuro-anatomy to facilitate the ventral horn cells with the ultimate goal of decreasing joint instability.
- Several techniques that the doctor / therapist will be able to utilize to help improve the stability of the affected joint.
- Clinical examples with audience participation to help the attendees integrate the information that was presented.

Synopsis of presentations: Thaler, Roland VMD, DACVSMR Treatment options for inflammation

Understanding the behavior of ultrasound image formation with optimization of image formation (basic) (I am assuming that the attendee should be able to understand that the information can apply to both SA and LA).

Optimization of imaging of proximal suspensory ligaments (practical)

Optimization of imaging of the digit (practical)

Advanced ultrasound guided techniques (advanced). The following techniques will be covered:

- LSSI injection technique
- Cervical facet technique
- C1/2 CSF aspiration technique
- IA elbow technique
- Guided regional anesthesia of median, tibial and fibular nerves

Injury specific shoeing techniques (practical)