Healing Oasis Wellness Center

Functional and Clinical Aspects of Neuro-Anatomy as it Applies to Rehabilitation and other Manual Therapies

Seminar Series

Suggested textbooks:
Nolte's the Human Brain – An introduction to its functional Anatomy;
Vanderah TW, Gould D., Eds. 2016; Elsevier, ISBN 978-1-4557-2859-6

Functional Neurology for Practitioners of Manual Therapies; Beck R., Churchill Livingston (Elsevier) Second Ed. Just came out.

Veterinary Neuroanatomy and Clinical Neurology (de Lahunta, A., Glass E., 3rd Ed, 2009). Elsevier

Seminar I

Dates: January 13th – 15th, 2017

- Friday: 2:00 – 7:00PM
- Sat: 8:00-1200hrs and 1:00-7:00PM
- Sun: 8:00-1:00PM

***Total of 20hrs of CE contact hrs.

Speakers:
Belinda Comito, DVM, Dipl. ACVIM-Neurology
Pedro Luis Rivera, DVM, FACFN, Dipl. ACVSMR
Stephanie Thomovsky, DVM, MS, Dipl. ACVIM-Neurology

Topics to be discussed:

- Muscular and osseous anatomy of the head, neck, thoracic limb, pelvic limb and body wall. Some of the muscles to be discussed and to be identified include but not limited to:
  - ✓ Temporalis, masseter, digastricus, rectus capitis group
  - ✓ Brachiocephalicus, omotransversarius, trapezius, rhomboideus, subscapularis, supra and infraspinatus, deltoideus, teres group, biceps brachii, brachialis, triceps, extensors and flexors of the carpus and digits.
  - ✓ Pectorals, latissimus, serratus ventralis, longissimus, transverso-spinalis
  - ✓ Iliopsoas muscle group, abdominal muscle group
  - ✓ Gluteal muscle group, tensor fascia latta, Sartorius, quadriceps group, biceps femoris, semitendinosus, semimembranosus, gastrocnemius, SDF, DDF

- Functional anatomy of the brain and spinal cord (including embryology)
    - ✓ Embryology
    - ✓ Differentiation of the 3 to 5 vesicles and the end result
    - ✓ Cranial nerves (basic embryology and developmental correlation)
    - ✓ In depth anatomy of spinal cord
    - ✓ Discussion of the afferent stimulation entering the Sp Cord and what happens as it enters.
    - ✓ Ascending tracts
    - ✓ How to utilize and integrate above information for better treatment outcome.
- Functional anatomy of the cervical, brachial and lumbo-sacral plexus. (ST)
- Complete and thorough neurological examination (BC or ST)
- Rehabilitation of patients with: (ST)
    - ✓ Weakness / paresis
    - ✓ Paralysis
    - ✓ Back surgery patients
- Differential diagnosis – It is all about being pro-active and understanding when to send back for diagnostics. (BC)
- Integration of the above information
- **Hands on lab = 3-4hrs.**

General goals for Seminar I:

- For the attendees to be able to describe the basic embryological development and anatomy of the CNS (brain and spinal cord) and PNS as it pertains to Rehabilitation Therapy.
- For the attendees to list, locate and correctly identify the major muscles discussed during class.
- For the attendees to identify, discuss and describe the primary function of all of the muscles discussed during class with its primary innervation.
- For the attendees to examine and provide a complete and competent neurological examination of the canine patient. Attendees will integrate said information to create and implement a practical and functional rehabilitation protocol.
- For the attendees to be able to localize the longitudinal level of the lesion based on an in depth neurological exam.
- For the attendees to describe and discuss the functions of the cortical lobes and the ascending tracts, with emphasis on the correlation to massage and rehabilitation therapy.
- For the attendees to describe and practice techniques for patients that have weakness / paresis and paralysis.

- For the attendees to describe, and differentiate the specific part of the nerve plexuses that must be addressed with specific paretic / weak muscles and its clinical conditions / presentations.