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ISBN: 978-1-934786-28-4

Published and distributed by
Jing Tang Publishing
9700 West Hwy 318
Reddick, FL 32686
www.tcvm.com
Tel: 352.591.2141
Fax: 352.591.2854

Printed by Tianjin Huanheng Color Printing Technology Development Co., Ltd. Intersection of 13th Rd and Jintang Rd, Hedong District, Tianjin, China

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# TABLE OF CONTENTS

## ABOUT THE EDITORS

 ix

## CONTRIBUTORS

 x

## INTRODUCTION

1

Traditional Chinese Veterinary Medicine for Neurological Disorders .... 3

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

## CHAPTER 1: The Integrated Neurological Evaluation and Research on Neurological Disorders

Integrated Neurological Evaluation ......................................................... 11

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Recent Research on Acupuncture for Neurological Disorders.................. 31

Songhua Hu, DVM, PhD, MS

## CHAPTER 2: Cerebral Disorders

Dementia, Stupor and Coma Disorders ................................................... 41

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Seizure Disorders .................................................................................. 7

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Tremor Disorders ................................................................................... 95

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Seizures in a 20 Year Old Quarter Horse Mare ..................................... 107

Joan D Winter, DVM

How I Treat Cognitive Dysfunction Syndrome .................................... 113

Huisheng Xie DVM, MS, PhD

How I Treat Hydrocephalus ................................................................... 117

RÌ ÇÂÔM Clemmons, DVM, PhD, CVA, CVFT

How I Treat CNS Neoplasia ................................................................. 121

RÌ ÇÂÔM Clemmons, DVM, PhD, CVA, CVFT

TCVM for Treatment of an Intracranial Lesion in a Dog ....................... 129

Heidi Woog, DVM, CVA, CVCH

Right Retrobulbar Squamous Cell Carcinoma in a Dog ........................ 135

Joan D Winter, DVM, CVA, CVCH, CVTP
Granulomatous Meningoencephalomyelitis and Other Immune-mediated CNS Diseases

Bruce Ferguson, DVM, MS, CVA, CVCH, CVTP, CVFT

CHAPTER 3: Cranial Nerve Disorders

Peripheral Cranial Nerve Disorders ........................................................................................................ 149
Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Treatment of Head Tilt/Vestibular Disease with Acupuncture and Chinese Herbal Medicine in a Chinese Pug ................................................................. 211
Daniel King, DVM, CVA, CVCH, CVTP

TCVM Treatment of Severe Canine Geriatric Vestibular Disease ........................................................................ 217
Margaret Fowler, DVM, CVA, CVCH, CVTP, CVFT

CHAPTER 4: Spinal Cord Disorders

Spinal Cord Disorders ................................................................................................................................. 225
Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Acupuncture Helps Dog With Vertebral Fracture Return to Near Normal Function .................. 323
Elisa Katz, DVM, CVA

Canine Intervertebral Disk Disease Treated with Aquapuncture and Chinese Herbal and Western Medicine ......................................................................................... 331
Chi Hsien Chien, DVM, PhD

An Effective and Simple Protocol to Treat Intervertebral Disk Disease Associated with a Qi-Deficient/Stagnation Pattern ......................................................... 333
Bruce Ferguson, DVM, MS, CVA, CVCH, CVTP, CVFT

Acupuncture for the Treatment of Spinal Cord Injuries ......................................................................... 337
Weerapongse Tangjitjaroen DVM, PhD

How I Treat Degenerative Myelopathy .................................................................................................. 347
RÍ ČÃÖM Clemmons, DVM, PhD, CVA, CVFT

CHAPTER 5: Neuromuscular Disorders

Generalized Neuromuscular Disorders ................................................................................................. 35
Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Acupuncture and Tui-na Treatment of Generalized Tetanus in a Dog ................................................. 38
Margaret Fowler, DVM, CVA CVCH, CVTP, CVFT

Idiopathic Phrenic Neuropathy in a Cria ............................................................................................. 3
Joan D Winter, DVM, CVA, CVCH, CVTP
# Table of Contents

## CHAPTER 6: Peripheral Nerve Injuries

Peripheral Spinal Nerve Injuries ................................................................. 39

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

Neurological Case Studies Associated with Trauma .................................. 41

Han Wen Cheng, DVM

## CHAPTER 7: Equine Neurological Disorders

TCVM for Treatment of Equine Neurological Diseases ......................... 4

Huisheng Xie, DVM, MS, PhD

TCVM Treatment of Suprascrapular Nerve Injury in a Dutch Warmblood Filly .... 44

Margaret Fowler, DVM, CVA, CVCH, CVTP, CVFT

## CHAPTER 8: Wei Syndrome, Tan-Huan Syndrome and Others

How I Treat Wei Syndrome ..................................................................... 4

Bruce Ferguson, DVM, MS, CVA, CVCH, CVTP, CVFT and Linda Boggie, DVM, CVA

How to Use Acupuncture to Treat Downer Cow Syndrome .................... 46

Huisheng Xie, DVM PhD

Suggested Changes in Location and Function and Pairing of Eight Distal Limb Acupoints in Dogs and Cats ....................................................... 46

Bruce Ferguson, DVM, MS, CVA, CVCH, CVTP, CVFT

## INDEX ................................................................................................................. 47
Huisheng Xie has taught and practiced Traditional Chinese Veterinary Medicine in both small and large animals since 1983. He is the founder of the Chi Institute, in Reddick, Florida, which is dedicated to train veterinarians in veterinary acupuncture, herbal medicine, food therapy and tui-na. His textbooks include *Traditional Chinese Veterinary Medicine-Fundamental Principles, Xie’s Veterinary Acupuncture, Xie’s Veterinary Herbology, and Application of Tui-na in Veterinary Medicine*. He had been the assistant and associate professor of College of Veterinary Medicine, Beijing China Agriculture from 1983 to 1994. He is currently a clinical associate professor of College of Veterinary Medicine University of Florida.

Cheryl L Chrisman received her DVM from Michigan State University in 1968 and became a Diplomate of the ACVIM Specialty of Neurology in 1975. She practiced and taught neurology at the Ohio State University and University of Florida for 37 years. As a graduate of Chi Institute, she became certified in veterinary acupuncture and also practiced acupuncture at University of Florida as a faculty member of the Acupuncture Service. She is currently on the faculty of Chi Institute and Editor-in-Chief of the American Journal of Traditional Chinese Veterinary Medicine.

Lisa Trevisanello received her DVM from the University of Padua, Italy in 2003. As a graduate of the Chi Institute, she became certified in veterinary acupuncture. She incorporated acupuncture into her practice of small animal medicine. Currently, she is working on her Master Degree of TCVM from the Southwest University, China. She co-authored chapters of *Xie’s Veterinary Acupuncture, Equine Acupoints CD and Xie’s Chinese Veterinary Herbology*. 
CONTRIBUTORS

Chi Hsien Chen DVM, PhD
National PingTung University of Science and Technology,
Taiwan, CHINA

Elisa Katz DVM, CVA
Wallingford, CT, USA

Han Wen Cheng DVM
Taipei, Taiwan, CHINA

Daniel King DVM, CVA, CVCH, CVTP
Tolono, IL, USA

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA
University of Florida, FL, USA

Weerapongse Tangjitjaroen DVM, PhD
Chiang Mai University, THAILAND

Roger M Clemmons DVM, PhD, CVA, CVFT
University of Florida, FL, USA

Joan D Winter DVM, CVA, CVCH, CVTP
Simi Valley, CA, USA

Bruce Ferguson DVM, MS, CVA, CVCH, CVTP, CVFT
Murdoch University, AUSTRALIA

Heidi Woog DVM, CVA, CVCH
Ketchum, ID, USA

Margaret Fowler DVM, CVA, CVCH, CVTP, CVFT
Panama City Beach, FL, USA

Huisheng Xie DVM, MS, PhD
University of Florida, FL, USA

Songhua Hu DVM, PhD
Hanzhou, Zhejiang, CHINA
INTRODUCTION
Traditional Chinese Veterinary Medicine for Neurological Disorders

Cheryl L Chrisman DVM, MS, EdS, DACVIM-Neurology, CVA

In the Chinese medical classic text, Huang Di Nei Ching (Yellow Emperor’s Classic of Internal Medicine or Canon of Medicine), written during the Warring States period (401–250 BC), the brain was not viewed as one of the important five Zang organs (e.g. Liver, Heart, Spleen, Lung, Kidney). The Kidney was considered the center for vigor and strength. The brain was viewed more as a reservoir of the Kidney system, because when full, the body felt strong and light, but when it was Deficient, dizziness, tinnitus, blurred vision, aching limbs and tiredness resulted. Since the brain resided within the bony skull, it was considered a reservoir of bone marrow and came to be known as the “Sea of Marrow”. The spinal cord was considered bone marrow within the vertebral canal. Peripheral nerves were not mentioned in early records. Marrow from a traditional Chinese medicine (TCM) perspective thus includes brain, spinal cord and bone marrow.

The ideas of Yin and Yang and the Five Elements as well as the treatments used in TCM and traditional Chinese veterinary medicine (TCVM) originated with the Daoists, ancient Chinese philosophers, whose ideas coalesced around 500 BC. The Daoists had an advanced view of the brain as an organ. They considered the brain as the palace of Ni Huan, a Chinese translation of the Sanskrit word for “nirvana.” The brain was considered the source of seminal Essence. The spinal cord was the Channel linking the cavity of the “Sea of Marrow” with Ming Men (the gate of life) situated between the Kidneys. As the idea of Extraordinary Fu organs evolved in TCM, the Brain became recognized as one of these special organs and became not only the “Sea of the Marrow”, but also the “House of the Mind and Spirit” similar to the earlier Daoists perception.

In TCVM, the correct Bian Zheng or pattern identification is paramount to achieve the optimum treatment outcome. Although there are several useful diagnostic systems and theories in TCVM, the ones most useful to describe TCVM patterns of neurological diseases are a combination of the theories of Yin/Yang, Eight Principles, TCVM Pathogens, Five Elements, Five Treasures and Zang-Fu physiology and pathology. The six roots of the Eight Principles are extensively used to describe neurological problems as External or Internal, Excess or Deficiency and Hot or Cold. The location of the neurological disorder can be External and involve the Channels, peripheral nerves and muscles or Internal affecting the Extraordinary Fu organs (Brain and Spinal cord) of the Kidney system often with concurrent imbalances in the Spleen, Liver or Heart systems according to their Five Element theory relationships. Excess neurological patterns often involve invasion of a TCVM pathogen like Wind-Heat, Wind-Cold or Damp-Heat or Stagnation of Qi or Blood or both (Qi/Blood Stagnation). Deficiency patterns often involve the Elements and Zang organs of the Kidney, Liver, Spleen and Heart. Further, the most common Deficiency patterns of neurological diseases include Deficiencies of Jing, Qi, Yin, Yang and Blood. Qi Deficiency may be primarily localized to one or more Channels (Exterior) and result in neurological deficits related to the specific cranial or spinal nerves and muscles involved (e.g. facial nerve paralysis or masticatory myositis). When Qi Deficiency involves the spinal cord, it has an Interior location and is associated with Kidney Qi Deficiency causing paresis or paralysis of the pelvic limbs or all four limbs.
As a review from the conventional anatomic perspective, the nervous system of dogs and cats consists of central and peripheral components. The central nervous system (CNS) is the brain and the spinal cord, and the peripheral nervous system (PNS) is the cranial and spinal nerves. The brain is further divided into the cerebrum and brainstem, and the brainstem consists of four sections from rostral to caudal: 1) the diencephalon containing the thalamus, hypothalamus, and other structures, 2) midbrain, 3) pons, and 4) medulla oblongata. The cranial nerves and spinal nerves of the PNS enter and/or exit specific brain stem and spinal cord segments respectively.

The spinal cord is divided into five sections that relate to the thoracic and pelvic limbs. The cranial cervical spinal cord (C1-C5) is caudal to the medulla oblongata, but just cranial to the thoracic limbs. The caudal cervical spinal cord (C6-T2) is located in the thoracic limb region and motor and sensory peripheral spinal nerves of the limb form the brachial plexus. The thoracic and cranial lumbar spinal cord (T3-L3) is located between the thoracic and pelvic limbs. The caudal lumbar and sacral spinal cord (L4-S2) is located in the region of the pelvic limbs and the femoral nerves (L4-L5) and sciatic nerves (L6-S2) enter and exit to form the lumbosacral plexus. The sacrocaudal spinal cord (S2-Cd5+) is located caudal to the nerves of the pelvic limbs. In dogs, the spinal cord is shorter than the vertebral column in the caudal lumbar region and terminates at vertebrae L6 or L7. The nerve roots L6-Cd5+ continue in the spinal canal to form the cauda equina and each one exits immediately behind the vertebra of the same number. Most discussions of neurological disorders also include primary muscle diseases, because muscles have a symbiotic relationship with peripheral nerves.

Conventional veterinary medicine and traditional Chinese veterinary medicine (TCVM) differ in their approach to the diagnosis and treatment of neurological diseases. However, when integrated, the two medical paradigms can lead to a deeper understanding of dysfunction and more effective therapeutic options for neurological patients. Understanding the disease process from a conventional perspective can deepen the understanding and application of TCVM theories and disease patterns and lead to better TCVM treatments. Understanding TCVM theories and disease patterns can deepen the understanding of the conventional disease and offer treatment when there are no conventional treatments. The conventional neurological examination is needed for accurate lesion location so that correct local acupoints or acupoints on Channels that traverse the lesion can be treated. Most common conventional neurological diagnoses are associated with one to seven different TCVM patterns that require different treatments.

The TCVM patterns and suggested acupuncture, Chinese herbal medicine, Tui-na and Food therapy treatments will presented in the subsequent chapters for the following conventional neurological disorders: 1) head injury, 2) cognitive dysfunction, 3) meningocerephalitis, 4) brain tumor, 5) idiopathic epilepsy, 6) congenital hydrocephalus, 7) idiopathic tremors, 8) geriatric tremors, 9) optic neuritis, 10) trigeminal neuritis, 11) facial paralysis, 12) vestibular disease, 13) deafness, 14) laryngeal paralysis, 15) masticatory myopathy, 16) intervertebral disk disease, 17) spinal cord trauma, 18) cervical spondylomyelopathy (wobbler syndrome), 19) fibrocartilaginous embolism, 20) diskospondylitis, 21) degenerative myelopathy, 22) atlantoaxial malformation, 23) meningomyelitis, 24) spinal cord tumor, 25) brachial plexus injury, 26) sciatic nerve injury, 27) lumbosacral degeneration 28) cauda equina injury, 29) polyneuropathy, 30) myasthenia gravis, and 31) polymyositis. There is increasing research support that confirms practitioners’ experiences that integration of TCVM treatments can result in less conventional medications with adverse side effects, fewer invasive neurosurgical procedures, faster recovery, improved degree of recovery, less disease recurrence and overall improved quality of life for neurological patients.
References: