Integrating acupuncture into veterinary practice

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Acupuncture is a 3000 year old therapeutic technique based on needle insertion in specific parts of animal's body for the purpose of treating a disease, disease prevention or maintenance of health. Acupuncture originated in China and is a part of Traditional Chinese Veterinary Medicine. The traditional concept of acupuncture uses metaphoric language to describe the pathophysiology of the disease and its treatment. In Traditional Chinese Veterinary Medicine, Qi (pronounced as CHI) is thought to be the energy or life force and is circulated through all parts of the body through pathways called meridians. Acupuncture points are found close the penetration of the nerve into the muscle or near nerve bifurcations. Acupuncture stimulates neurological activity at the level of the spinal cord and or higher cerebral levels releasing different neurohormones such as beta-endorphins and serotonin. Acupuncture stimulates Aβ sensory fibers causing local spinal inhibition of nociception by releasing endogenous opioids. The release of endogenous opioids inhibits Aδ and C nociceptive fibers. Acupuncture is mainly used for control of pain resistant to conventional treatments and for restoration of musculoskeletal functions after neurological damage. SPECT (Single Photon Emission Computed Tomography) studies have shown that patients with chronic pain have an asymmetric uptake of the radioisotope Hexamethylpropyleneamine oxime in the thalamic region. SPECT study repeated 20 minutes post acupuncture showed a reversal in the original asymmetry which coincided with the reduction of pain. A PET (Positron Emission Tomography) study with De-Qi (conscious perception) sensation at an acupuncture point stimulated with 2 Hz at LI-4 activated the hypothalamus, whereas the sham point did not. Recent studies using functional magnetic resonance imaging (fMRI) and Positron Emission Tomography (PET) have demonstrated the direct relationship between acupuncture point stimulation and activation of specific brain areas related to specific functions as described by TCVM theories. Several techniques and equipments are used in veterinary acupuncture and Traditional Chinese Veterinary Medicine such as dry-needle acupuncture, electro-acupuncture, moxi-bustion, laser-puncture and aqua-puncture. Acupuncture is a complementary therapy and works best with concurrent medical and or surgical therapy thus broadening the indications of acupuncture and minimizing side effects. WHO lists 6 categories that acupuncture is recommended to treat which includes problems of the upper respiratory tract, respiratory systems, gastrointestinal disorders, neurological or musculoskeletal disorders and mouth/eye conditions. In veterinary practice acupuncture is primarily used for pain management, non surgical management of Intervertebral Disc Disease (IVDD), management of arthritis, rehabilitation following spine and orthopedic surgeries. Acupuncture can also used for its non-analgesic properties such as reducing the adverse effects of chemotherapy, promoting wound healing, dermatological “itch”, complementary therapy to chronic kidney disease and chronic gastrointestinal diseases and improving performance in sport animals.

Biography
Prathmesh Deshmukh has graduated from Bombay Veterinary College in 2010 and completed certification in Veterinary Acupuncture from CHI Institute of Europe, Spain in 2012. In 2013, he was appointed to the Board of Directors of the World Association of Traditional Chinese Veterinary Medicine (WATCVM). He has attended a course in Veterinary Neuroscience & Advanced Clinical Neurology and Veterinary Magnetic Resonance Imaging (MRI) from European College of Veterinary Neurology, Bologna, Italy. He has attended several continuing education programs and externships at a Neurology clinic in Spain.

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