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What is Acupuncture?

Acupuncture is the insertion of needles into certain points in the body to achieve a desired healing response. This response occurs through the rebalancing of "Qi" or life force, according to Traditional Chinese Medicine. In evidence-based allopathic medicine, this healing is explained to occur by neuroelectric stimulation for the gene expression of neuropeptides.

History of Acupuncture

Acupuncture dates back to the most important medical work of ancient TCM - *The Yellow Emperor's Classic of Internal Medicine, Huangdi Neijing*, written in 2700 BCE. The second foundation work - *Difficult Classics on Medicine, Nanjing*, was written by the great physician, Bian Qu during the Shao Dynasty (1500 - 1027 BCE). There is evidence of veterinarians practicing acupuncture during the Zang and Chou Dynasties (2000 - 3000 BCE). Theory suggests horses were the first animals treated with acupuncture, since they were most valued for use in agriculture and during wartime. There exists a sculpture from the Tang Dynasty (580 - 590 AD) showing a soldier performing acupuncture on a horse's shoulder. A reference book of equine acupuncture was compiled by a group of Jesuit priests during the Ming Dynasty. Entitled *The Treatise on Horses*, it later became the basis of modern Chinese veterinary medicine.

In 1974, a small group of American veterinarians invited 2 Japanese acupuncturists to the United States to share their knowledge. That group became I.V.A.S., the International Veterinary Acupuncture Society. This not-for-profit organization, based here in Fort Collins, educates veterinarians in Traditional Chinese Medicine (TCM) with yearly courses and certifications.

TCM Philosophy of Acupuncture

Traditional Chinese Medicine (TCM) interprets disease as a state of imbalance in the organism. The imbalance is between the "yin" and the "yang." Yin is represented by the color black in the Tao symbol. It is cold, negative, deficiency. Yang is represented by the color white in the Tao symbol. It is hot, positive, excess. Everything in nature can be categorized as yin or yang and the balance of life depends on their interrelationships. If yin and yang are not in balance, "dis-ease" occurs. According to TCM, "Qi" or energy or life force travels through the body via meridians or channels. There are 14 paired meridians, each containing various numbers of acupuncture points. 12 of the meridians are named after organ systems and each meridian communicates with its associated organ or organ function. These are LUNG & LARGE INTESTINE, STOMACH & SPLEEN, HEART & SMALL INTESTINE, BLADDER & KIDNEY, PERICARDIUM & TRIPLE HEATER, GALL BLADDER & LIVER. The GOVERNING VESSEL travels along the dorsal midline while the CONCEPTION VESSEL travels along the ventral midline. The acupuncture points can be manipulated to influence the flow of qi along these meridians in order to rebalance the energy within a body. Although some of these ideas may seem foreign to us, we should keep an open mind and realize that the Chinese developed the ideas of homeostasis and negative feedback long before Western medical science existed. They described these interrelationships between health and disease in their own poetic way.

Evidence-Based Science of Acupuncture

Acupuncture points are areas of concentrated nerve bundles and blood vessels. These regions have a unique property of increased electrical conductivity (may be found with an ohm meter). When a needle is placed in an acupuncture point, a signal travels along the afferent peripheral nerve, following pathways for pain transmission, to reach the spinal cord. Results include blockage of pain, known as the "gate theory" wherein needle stimulation of A-delta fibers blocks sensory input from the slower-conducting C fibers to the substantia gelatinosa of the spinal cord.

Another route of acupuncture-induced analgesia is due to an increase in levels of enkephalins, beta endorphins, and serotonin in the brain. Rise in systemic endorphins results in analgesia as well as vasodilation, rise in adrenocorticotrophic hormone (and subsequently, endogenous cortisol), and rise in growth hormone.

Acupuncture has been proven to enhance immune function via release of endogenous immunomodulatory factors such as white blood cells, immunoglobulins, interferon, and antibodies. Stimulation of some points has been proven to enhance endocrine function via release of certain hormones such as thyroid hormone and leutinizing hormone.

Uses for Acupuncture

Acupuncture may be used for a variety of conditions. In the performance horse, it can be used to treat musculoskeletal conditions as well as allergies, skin problems, reproductive disorders, neurologic problems, gastrointestinal problems, etc. It is very beneficial to treat minor sports-related injuries as they occur in order to avoid further injury secondary to compensation.

In horses, "aqua-puncture" is often used. This is the insertion of small gauge hypodermic needles into acupuncture points and the injection of liquid through them. Often vitamin B12 is injected. An acupuncturist may also use solid needles, electrical stimulation, moxibustion, transcutaneous electrical nerve stimulation (TENS).

Disclaimer

Acupuncture is classified as a "complementary" therapy in veterinary medicine. "Complementary" therapy means in conjunction with other therapies that may be employed. Acupuncture does not replace conventional veterinary medicine. In an emergency situation such as a colic or acute musculoskeletal injury, allopathic medicine and/ or surgery may be in order.