Integrating Acupuncture Into Veterinary Practice



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Overview

- History Of Acupuncture
- Techniques and Equipment
- Traditional concepts of Acupuncture
- Scientific Basis : Neurohumoral theory of Acupuncture
- Experimental evidences : SPECT, PET & f-MRI studies.
- Acupuncture in Veterinary Practice
- Clinical cases.

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Acupuncture

- Veterinary Acupuncture is a therapeutic technique based on needle insertion in a specific parts of animals body for purpose of treating a disease , disease prevention or maintenance of health.
- Acus – Needle
- Punctura – Penetrate.
- In 1979 WHO declares “Acupuncture must be considered as a clinical procedure of substantial value.”

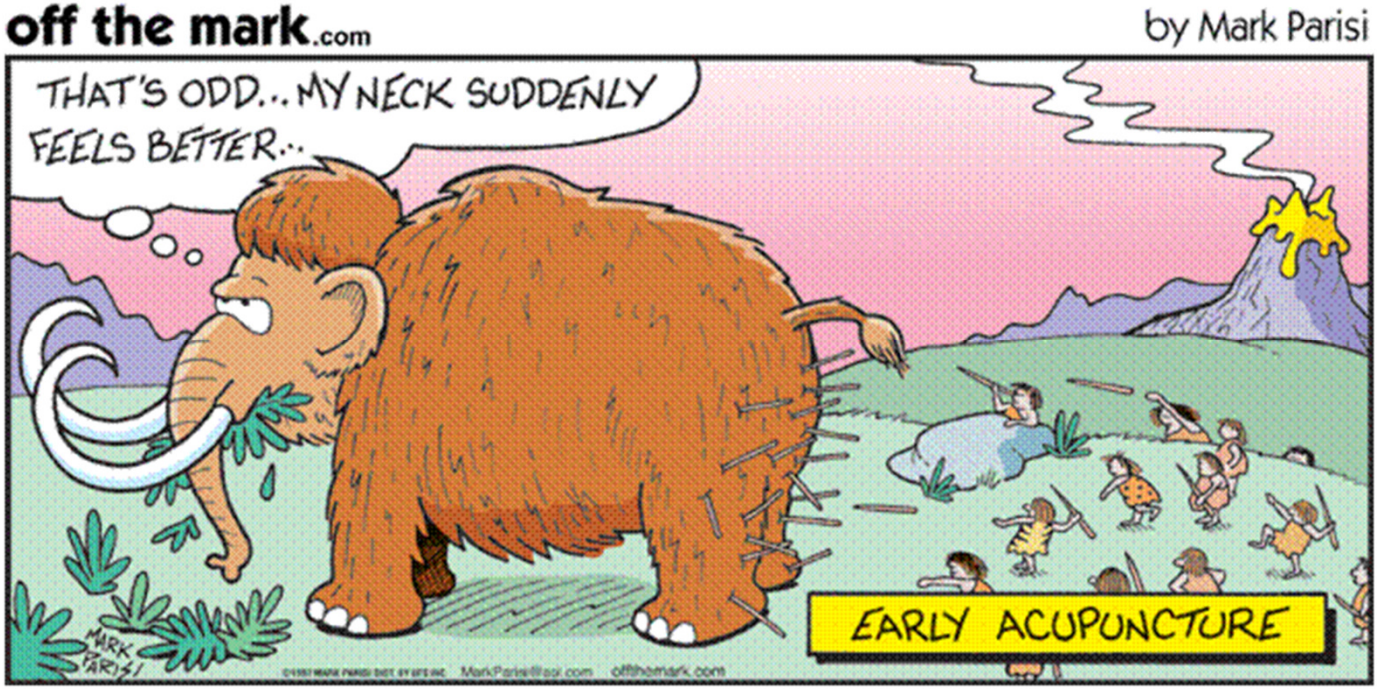


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History Of Acupuncture

- Traced to Neolithic period.
- Stone acupuncture needles unearthed from Mongolia

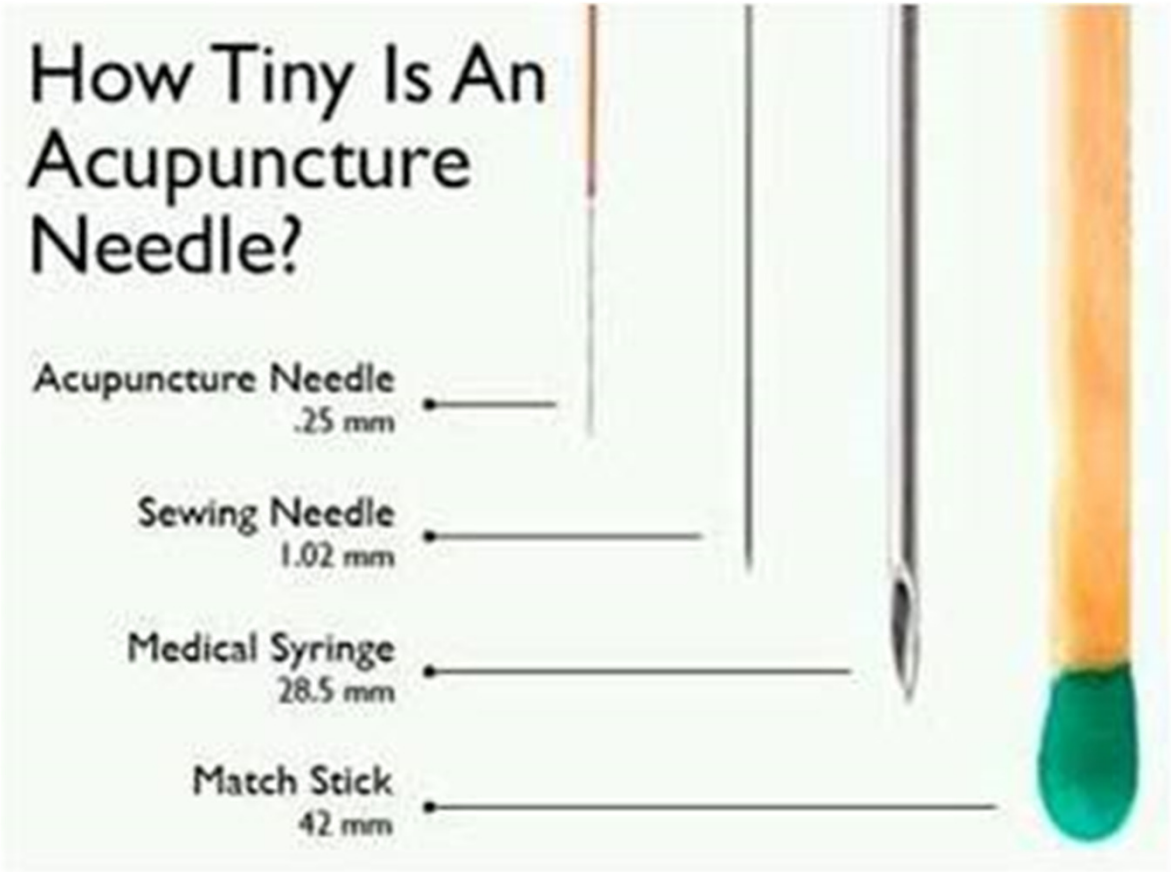


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Equipment and Technique

- Dry Needle Acupuncture



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Electro Acupuncture

- Mild electro stimulation at specific acupuncture points.
- Different frequencies stimulate different neurohormones.



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Moxibustion

- Herb Atremesia burns and generates heat. Used for heat stimulation of needles.



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Laser Puncture

- Good for Cats.
- Faster healing of wounds.
- Needle-Free

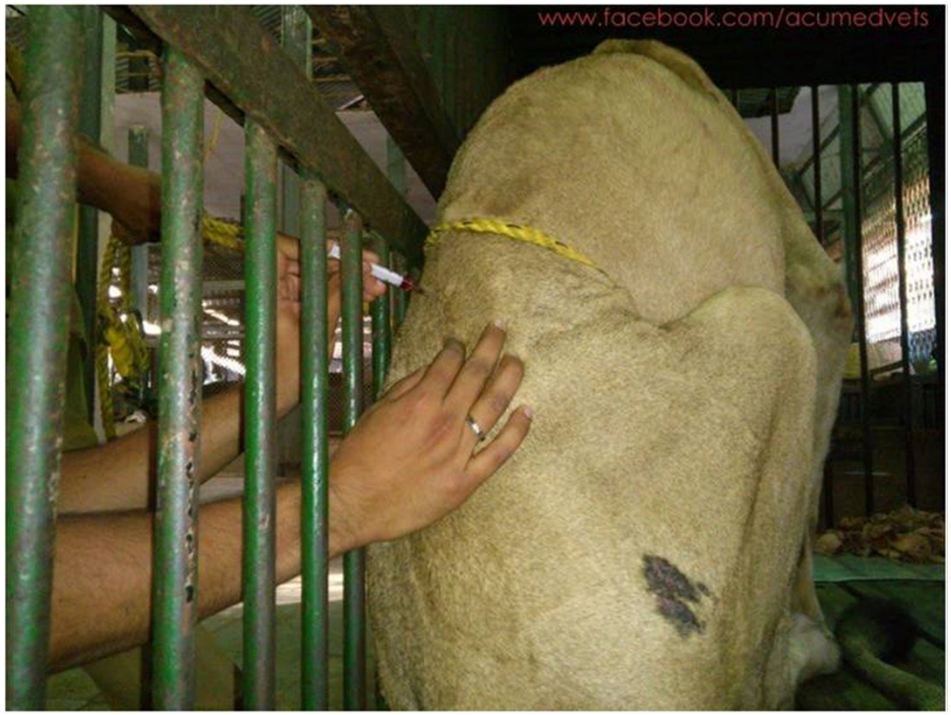


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Aqua Puncture

- Aqueous injection into Acupuncture points

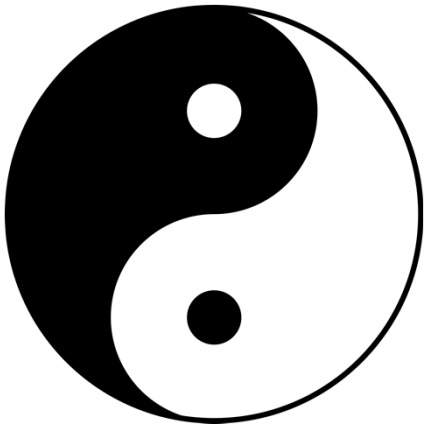


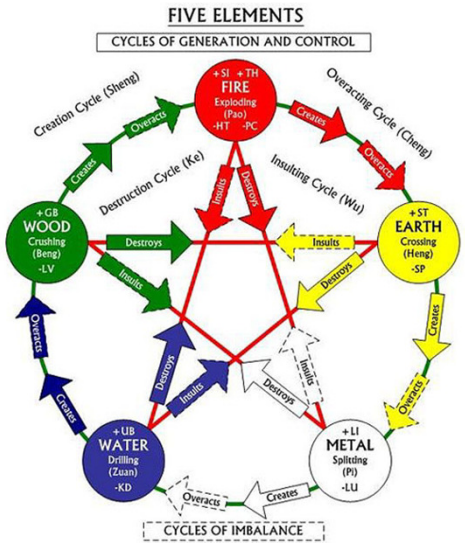
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Traditional Concept of Acupuncture

- Acupuncture is a part of Traditional Chinese Veterinary Medicine (TCVM)
- Qi is thought to be the life force.
- Qi is circulated through all parts of the body via meridians

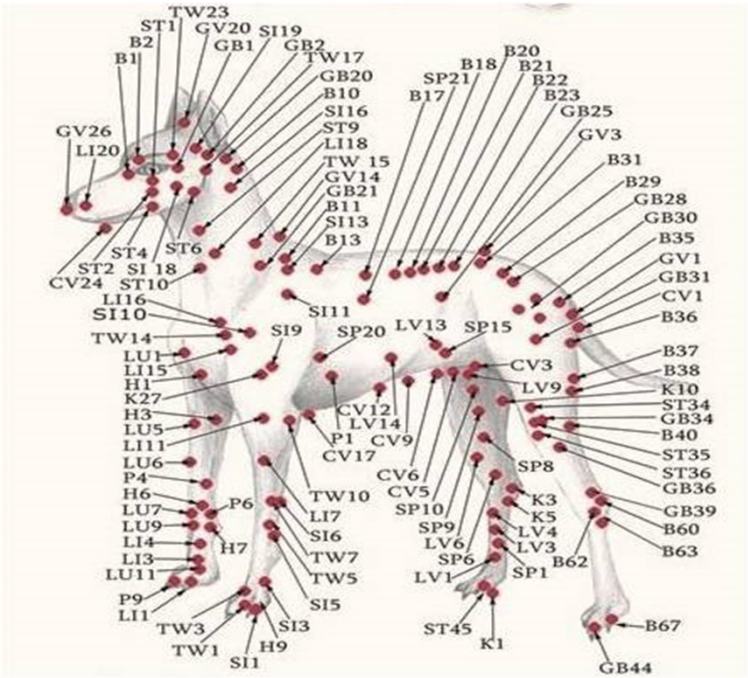




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Where are Acu-points located

- Where nerves penetrate muscles.
- Nerves intersect on dorsal and ventral midlines.
- Superficial nerves branch.
- Nerves penetrate tendons (Golgi Tendon Organs).

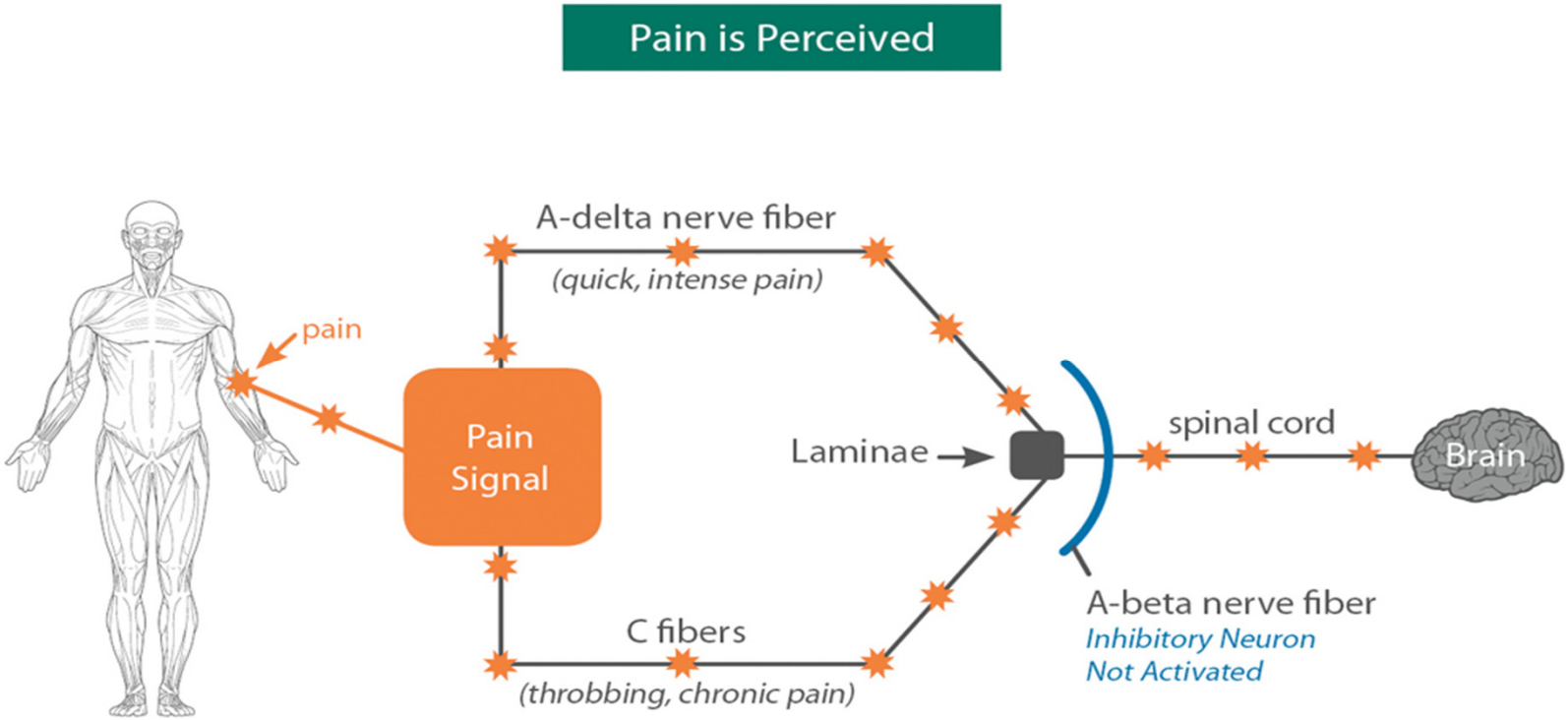


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Scientific Basis :Neurohumoral Theory

- 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 fibres causing local spinal inhibition of nociception by releasing endogenous opioids. The release of endogenous inhibit Aδ and C nociceptive fibres.



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Experimental Evidences

- Single Photon Emission Computed Tomography (SPECT) studies
- Positron Emission Tomography (PET) studies
- Functional Magnetic Resonance Imaging Studies (f-MRI) studies

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Single Proton Emission Computed Tomography (SPECT) Studies

- Patient with chronic pain have asymetrical uptake of isotope Hexamethylpropylamineoxime in thalamic region.
- SPECT studies repeated 20 minutes post acupuncture showed a reversal in original asymmetry which coincided with reduction of pain.



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Positron Emission Tomography (PET) Studies

- De-Qi or conscious perception (sensation) at an Acupoint stimulated at LI-4 , activated the hypothalamus.
- The Sham acupoint did not.



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Functional Magnetic Resonance Imaging (f-MRI) Studies

- Recent studies with f-MRI & PET have demonstrated the direct relationship between acupuncture points stimulation and activation of specific brain areas related to specific functions, as described by the TCVM theories.



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Applications of Acupuncture

- 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

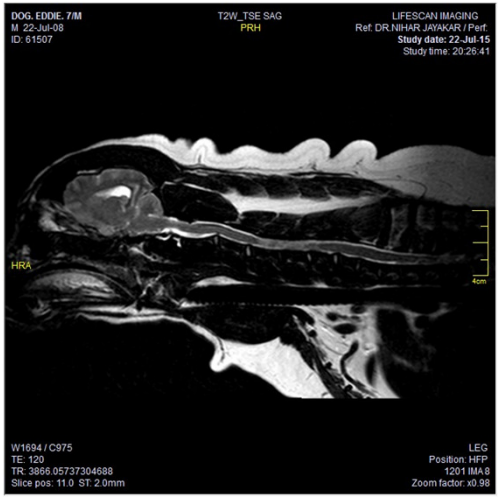


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Acupuncture in Clinical Practice – Analgesic Properties

- Pain Management.
- Non-surgical management of Intervertebral disc disease.
- Management of Arthritis.
- Decreasing post orthopedic and spine surgery recovery time.

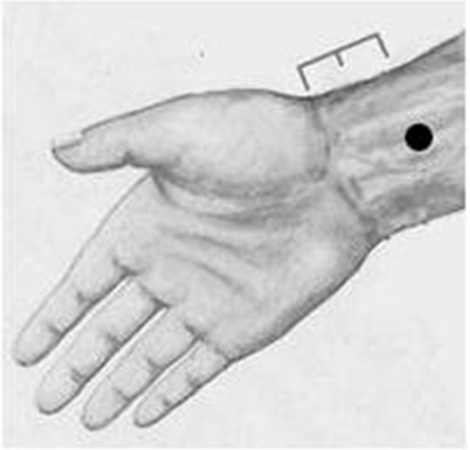




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Non Analgesic Properties

1. Reducing side effects of chemotherapy.
2. Promoting wound healing.
3. Dermatological “itch”
4. Complementary therapy to chronic renal & gastrointestinal insufficiencies
5. Improving performance in sports animals.



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Case : Tetraplegia. Acupuncture for IVDD

- Rocksy, 8 year male, Labrador.
- Acute onset of Tetraplegia.
- Pain score 4/4 (CSU pain scale)
- Lost control over urine and stools.



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Rocksy : MRI



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Rocksy

- Rocksy received 5 sessions of Acupuncture a week apart.
- He continued to have medications for Spinal pain relief and cage rest.



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Rocksy 6 weeks later



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Acupuncture for Pain Management



- Hip lameness.
- Painful.
- Flinching upon palpation.

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Pre Acupuncture



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Post 20 min of Acupuncture



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References

- Egger, C. M., Love, L., & Doherty, T. (2013). *Pain management in veterinary practice*: John Wiley & Sons.
- Huisheng Xie, D., & Lindsey Wedemeyer, M. (2012). The validity of acupuncture in veterinary medicine.
- Wang, S.-M., Kain, Z. N., & White, P. (2008). Acupuncture analgesia: I. The scientific basis. *Anesthesia & Analgesia, 106*(2), 602-610.
- Traditional Chinese Veterinary Medicine, Fundamental Principles

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Thank you.



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