

OMM vs Medical Acupuncture

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Declaration

- I have no financial conflicts of interest in any part of this presentation
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Objectives

- Compare the two health care from development to current day.
- Explain techniques of acupuncture and acupressure.
- Compare OMM and Medical Acupuncture and Western Medicine with musculoskeletal treatment as a model.

Medical Acupuncture Development

*Early Chinese Practitioners and Texts

- 1. Acupuncture has evolved over 6,000 years with the primary development over the last 2,000 years. It continues to evolve.
- 2. The ancient texts were written in poetic & metaphoric language - they present models of health, dysfunction, & treatment consistent with current western physiology, psychology, physics, & neuro-pharmacology.
- A. However, the terminology was consistent with the world view of an agrarian society several millennia ago. This is a major problem in the West understanding medical acupuncture.

*Early Chinese cont'd

- 3. 4000 B.C. - Emperor & doctor Fu Xi Shi credited w/ inventing 9 types of acupuncture needles.
- 4. 1600 B.C. - Earliest written records etched on bone.
- 5. 2500-1000 B.C. - I Ching listed the foundation of energy dynamics which are:
 - A. Operating laws of acupuncture
 - B. Reference & guide for later texts

Early Chinese cont'd

- 6. 5th to 2nd Centuries B.C. - Huang Ti Nei Ching or “Yellow Emperor’s Classic of Internal Diseases”—Compilation of a number of authors. Called the Chinese hippocratic corpus.
 - A. Regarded the human body as a microcosmic reflection of the macrocosm of the universe.
 - B. Medicine’s efforts are to maintain body’s harmonious balance internally & in relation to the universe.
 - C. Hippocrates was developing early physical examination, diagnosis and treatment in the 4th Century BC/BCE.

Early Chinese cont'd

- 7. 1st Century A.D. - Nan Ching or “Classic Difficulties” -
 - A. Marks the apex & conclusion of the developmental phase in the medicine of systematic correspondences - the organization, interpretation, and interrelation of natural phenomena & applying this to medicine, astrology, social politics, music and natural sciences.
 - B. Presented a unified & comprehensive system that advanced theories of points & channels & addressed etiology of illness, diagnosis & therapeutic needling.

Early Chinese cont'd

- 8. 2nd Century A.D. - Shang Han Lun or “ Systematic Classic of Acupuncture and Moxibustion”
 - A. Treatise on acupuncture, moxibustion (therapeutic heat), and herbal medicine (nutraceuticals).
 - B. One of the clinical foundations of traditional Chinese pharmacology.

Early Chinese cont'd

- 9. 282 A.D. - Zhen Jiu Jia Yi Jing - “Comprehensive Manual of Acupuncture & Moxibustion”
 - A. Oldest classical text devoted entirely to acupuncture & moxibustion.
 - B. Arranged the points as 3 continuous channels starting from the feet & extending to the hands, & 3 channels starting at the hands & extending to the feet.
 - C. Terminology developed by empirical observation of what affected what. (Ex: Large intestine channel does not cross the Large Intestine but had effects in that area and other areas, as headaches.)

Early Chinese cont'd

- 10. Tang dynasty (618 - 907 A.D.)
 - A. Increase in Chinese medical teaching with establishment of Imperial Medical College (618 A.D.) and others in each province.
 - B. Acupuncture exported to Korea, Japan, & Southeast Asia.

Early Chinese cont'd

- 11. Song dynasty (960 - 1279 A.D.)
 - A. Wang Wei-Yi revised points & channels. He located 359 points along 14 channels, & described medical indications & depth of needling for each.
 - B. He designed 2 life-size bronze figures inscribed with the points & channels. The figures were filled with water or mercury and coated with wax. The student was tested by having to needle the correct point, blindfolded. Correct technique - the figure would leak.
 - C. Western medicine was developing but pursuing a different viewpoint of cause and effect at this time.

Early Chinese cont'd

- 12. Ming dynasty (1368 -1644 A.D.)
 - A. Marked increase in clinical refinements.
 - B. Zhen Jiu Da Cheng - “Great Compendium of Acupuncture & Moxibustion” published in 1601. Primary source for acupuncture information exported to Europe by Dabry de Thiersant in the 19th century & Soulie de Morant in the 20th century.

*19th Century China

- 1. Qing dynasty (1644 - 1911)
 - A. Deterioration of Traditional Chinese Medicine (TCM) and acupuncture.
 - B. 1822 - Qing emperor ordered acupuncture no longer be taught at Imperial Medical College.
 - C. Jesuit Missionaries - brought western medicine to China since 17th Century.
 - D. Dutch East India Co. - brought western medicine with trade -19th Century.
 - E. American missionary doctors - 19th Century.
 - F. Opium War (1839 - 1842) - British military doctors.

19th Century China cont'd

- 2. As western medicine improved drugs, surgery, and public hygiene; acupuncture & TCM declined.
- 3. In the mid to late 1800's A. T. Still began the development of Osteopathic Manipulative Medicine.

*20th Century China

- 1. Early 20th Century - TCM schools were closed or threatened.
- 2. 1929 - Guomindang gov't tried to outlaw Chinese medicine.
- 3. Strong opposition to TCM & acupuncture from Nationalists & Communists.
- 4. 1930's & 1940's - Cont'd practice of TCM & acupuncture.
- 5. Under Nationalists - Official establishment of western medicine & its expansion in China.

*20th Century China cont'd

- 6. 1940's - Japanese occupation & civil war - much of China suffered infectious epidemics & malnourishment.
- 7. After 1949 rise of Mao Tse Tung & Communists - Move to increase TCM due to insufficient #'s of western-trained doctors.
- 8. Barefoot Doctors - People in rural areas trained in basic TCM, some western medical skills to treat some medical emergencies, injuries, & illnesses.

*20th Century China cont'd

- 9. Late 1960's - Great Proletariat Cultural Revolution - 70 - 80% of illnesses treated by barefoot doctors with herbs & acupuncture.

*Late 20th & Early 21st Century China

- 1. TCM & acupuncture practiced with & as an optional alternative to western medicine.
- 2. Chinese Ministry of Public Health - standardized approach to teaching & practice of TCM & acupuncture. Maintains training centers for TCM & acupuncture.
- 3. Western medical schools & Chinese medical schools give basic courses in the respective other discipline.

*20th & 21st Century China cont'd

- 4. Medical centers sponsored research & publications in acupuncture.
- 5. Training centers have training programs for foreigners in acupuncture & TCM.
- 6. At this time Chinese manual medicine (Tuina) developed.
- 7. Korean manual medicine (Chuna) developed (with the help of the text Principles of Manual Medicine by Philip Greenman, DO).

*Other Civilizations

- 1. Other societies developed energetic or acupuncture-like treatments.
- 2. Egyptian “Ebers” papyrus (1550 B.C.) - medical writing which discussed peripheral vessels or meridians.
- 3. Indian Ayurvedic medicine has concepts similar to acupuncture.
- 4. South African Bantu tribes scratch various body parts to treat disease.

*Other Civilizations cont'd

- 5. Arabic treatment of sciatica with cauterizations of the ear.
- 6. Eskimo societies have used stone stimulation of the skin for healing.
- 7. A Brazilian tribe has used small blowpipe arrows applied to the body for healing. (These tribal members have Asian facial features.)

European Importation

- 1. 1st European reports on Chinese medicine from 16th & 17th century Jesuit missionaries in Canton province.
- 2. Portuguese, French, Dutch, & Danish missionaries, traders, & physicians traveling & working in China & Japan in same time.
- 3. French Jesuits coined term “Acupuncture” from Latin acus (needle) & punctura (puncture).
- 4. Earliest reports noted diagnoses by feeling radial pulse, consuming medicinal herbs & teas, using glass needles.

Euro Import cont'd

- 5. Dutch East India Company trading posts established in 17th Century in areas already influenced with Chinese culture.
- 6. 1st European treatise on acupuncture - “Dissertation on Arthritis” by Willem Ten Rhigne. Dutch scholar & physician who learned acupuncture from Japanese doctors on Dejima in Nagasaki Bay, & in Java. This was translated from Chinese to Japanese to Dutch, & then Latin. This may be the cause for ambiguity between acupuncture channels, blood vessels, and vertebrae.

*French Importation

- 1. Dujardin published “History of Surgery” in 1774. This recommended needling painful sites & where illness seemed to originate.
- 2. Early 1800’s acupuncture case reports.
- 3. 1800’s medical experimentation included acupuncture.
- 4. 1826 Sarlandiere stimulated acupuncture needles with electrical discharges from Leyden jars.

French Import con'd

- 5. As medical research spread around Europe, acupuncture research expanded.
- 6. Explanation of acupuncture effect included: galvanic & electric fields, electromagnetic action, drawing off morbid influences, stimulation of the nervous system.
- 7. Sarlandiere felt electrical acupuncture saturates the electric fluid & non-electrical draws off electricity.
- 8. French involvement in Indochina allowed for continued exportation of acupuncture to Europe.

French Import cont'd

- 9. 1901 - 1917 George Soulie de Morant, French diplomat in Yunnan province became doctor of Chinese medicine. Wrote “Chinese Acupuncture” which was adopted by the French & European community. Demonstrated western anatomy, physiology, & pathology according to Chinese medical principles. Used the terms “meridian” & “energy” to translate the terms “Jing” & “Qi”. Listed & organized them according to their associated organs.
- 10. After WW II practice was common.
- 11. Now training is included in Med Schools.

Acupuncture in America

- 1. 1825 - “Memoir on Acupuncturation” by S. Morand, from French to English by Dr. Franklin Bache, who did research on rheumatism & neuralgia showing improvement in pain.
- 2. American Civil War surgeon’s manual commented on acupuncture.
- 3. 1876 & 1880 medical texts mentioned acupuncture.
- 4. Sir William Osler’s “The Principles and Practice of Medicine” recommended acupuncture for lumbago & sciatica in all 16 editions from 1892 through 1947.

Ac in Amer cont'd

- 5. It is believed that there was an influx of acupuncture into North America in the 19th century when Chinese laborers were brought to America. No reports of interaction between traditional acupuncture & western medical practitioners.
- 6. 1971 - James Reston went to Beijing to report on a ping-pong tournament between China & USA. Appendicitis treated there with acupuncture for relief of post-op pain. He reported this in a front page New York Times article.

Ac in Amer cont'd

- 7. 1972 - President Nixon's personal physician to China. He witnessed surgeries done with acupuncture analgesia & corroborated earlier physicians reports.
- 8. NIH sponsored a physician team to study health care in China & established research grants to study mode of action & clinical efficacy of acupuncture.
- 9. 1977 to 1984 - Acupuncture analgesia shown to be linked to CNS actions of endogenous opioid peptides & biogenic amines. This increased acceptance in medical community.

Ac in Amer cont'd

- 10. By 1990, approx. 1500 physicians & 8000 non-physicians practice some degree of acupuncture in USA. Standards for education, practice, & regulation have been developed. Professional societies to advance medical acupuncture have arisen.
- 11. World Health Organization Division of Traditional Medicine developed standardized nomenclature & recommended evaluation of clinical use.

Ac in Amer cont'd

- 12. 1997- NIH Consensus Statement on Acupuncture.
 - A. Large panel of experts studying research and practice of acupuncture in broad areas of medicine. (incl. Philip Greenman, DO for OMM & Alf Nachamsen, PhD for back pain research)
 - B. Problem - lack of appropriate controls as placebo and sham acupuncture.
 - C. Results - “Promising” in adult postoperative & chemotherapy nausea & vomiting & in postoperative dental pain.

Ac in Amer cont'd

- 12. NIH Consensus - cont'd
 - D. “May be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program” in “situations such as addiction, stroke rehab., headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain, carpal tunnel syndrome, & asthma.”

OMM Development

- A. A. T. Still in the late 1800s expanded knowledge of musculoskeletal treatment with structure and function approach.
- B. With development of The American School of Osteopathy and training of osteopathic medical students in manual medicine techniques these evaluations and treatments increased.
- C. As the number of schools increased, research in this area grew.
- D. As research expanded, correlation of OMM with musculoskeletal injuries & illnesses , internal medicine complaints and musculoskeletal side effects of internal medicine complaints developed.

OMM in Internal Medicine

- A. OMM has developed to be helpful throughout the body, including a stand alone treatment for many conditions or as an adjunct to primary treatment for many conditions and side effects.

Medical Acupuncture in Internal Medicine

- A. The World Health Organization has developed medical acupuncture treatments and standards for all internal medicine diagnoses.
- B. These treatments include medical acupuncture use as primary treatments or auxiliary treatments.

Anatomic Studies of Ac. Points

- A. Histology - Multiple studies to examine structure of Ac points.
 - 1. Surface Area - 0.5 - 1.0 sq. mm.
 - 2. Primarily in depressions along cleavage planes b/w muscles.
 - 3. Columnar structure w/ vertical orientation perpendicular to the skins surface.
 - 4. Made of loose connective ts, surrounded by dense connective ts, not a good conductor.
 - 5. Structural elements loosely assembled.

Histology, cont'd

- 6. Lymphatic trunk at center, coupled w/
- 7. Large Arteriole w/ 1 branch extending toward the epidermis, accompanied by a satellite vein.
- 8. Organization of lymph-arteriole-vein complex creates a passage b/w skin & deeper ts.
- 9. Vascular structures organized in series of closed loops.
- 10. Vessels surrounded by netlike structures of unmyelinated cholinergic autonomic nerve fibers.

Histology, cont'd

- 11. Myelinated nerves wrap around blood & lymph vessels that lead to more superficial levels of dermis.
- 12. Nerves located proximal to vascular elements w/o being entangled by them.
- 13. Epidermis thins at the Ac point, w/ change in collagen fibers.

Ac. Points, Motor Points, Trigger Points

- 1. Cadaver dissection showed Ac. points correspond to peripheral nerve endings, cranial & spinal, on the skin. (Shanghai study)
- 2. Cadaver study showed most Ac. Points correspond to nerve-vessel bundles penetration through superficial fascia. (German study)
- 3. Common locations of Ac. points are tender points, peripheral nerve distribution on skin, areas where peripheral nerves penetrate fascia and are accompanied by blood vessels, neuromuscular attachments, bifurcations of large peripheral nerves, ligaments, skull sutures. (American study)

Ac. Pts, Mot. Pts, Trigger Pts., cont'd.

- 4. 60 - 80% correlation b/w Ac. points & trigger points.
- 5. Suggested that Ac. points, trigger points, & motor points are part of the same musculoskeletal mechanism.
- 6. Viscerocutaneous reflex - Mechanism where internal organs refer pain, sensitivity or muscle contraction to Ac. or trigger points.
(Felix Mann) Pathways follow autonomic, myotomal, & dermatomal distributions for each spinal segment.

Ac. Pts, Mot. Pts, Trigger Pts, cont'd.

- 7. Cutaneovisceral reflex - Stimulation of points on the skin may affect internal organs & disease. (Felix Mann)
- 8. These reflexes are segmental & are organized in specific distribution of points on back parallel to the spine & on the anterior trunk. (Shu-Mu subsystem)
- 9. These correlate with concepts in OMM & its use in Internal Medicine. (Chapman's and Jones points.)

Hormonal Stimulation

- The **low frequency high intensity** stimulation produces analgesia of slower onset and long duration, with a 20 minute stimulation effecting 30-120 minutes of analgesia
 - **The effects are cumulative (Increased endorphins & Cortisol release) in repeat sessions
 - may be due to observed increase in m-RNA for endorphins seen for 48 hours after stimulation
- The **high frequency low intensity** stimulation (Increase serotonin) is rapid but short duration and no cumulative effects

Definitions

- 1. Qi - base constituent of the body that represents the finest material aspect of the nourishment obtained from eating, drinking, & breathing; the vivifying force circulating through the acupuncture channels to protect, nourish & animate living beings. In contemporary texts, Qi is commonly translated as energy or energetic influences. (Helms) (Energy, oxidative metabolism, etc)

Definitions, cont'd

- 2. Channel - A contiguous line of energy flow, also called an energy axis. Channels are often termed Meridians & the terms are usually used interchangeably, even though Meridians are a series of synergistic & coupled channels.
- 3. Principle Meridian System - Major channels of the acupuncture circulation network; the infrastructure supporting the majority of the acupuncture points. (Helms)

Comparative Treatment

- 1. Acupuncture Energetics - Using needles to stimulate acupuncture points to affect the related organs and achieve the homeostatic balance of that area and function of the body.
 - A. Sphere of influence - The organs and functions that are affected by each of the points & channels.
 - B. Ex: Stimulate points on the Stomach channel to increase GI motility, seen on flouroscopy. Similar to oral meds to accomplish the same effect.
 - C. Western approach is to use medications to balance biochemistry, hormones, etc, to achieve homeostatic balance.

Comparative Treatment, cont'd

- 2. Neuroanatomic Acupuncture - Use of needles to stimulate endorphins, break muscle spasm, and relax trigger points.
 - A. Similar to OMM, U/S, EMS, and therapeutic exercise, & injections.
 - B. Acupuncture needles deliver stimulation at the muscle and joint, as opposed to modalities that stimulate on the surface & radiate through the tissues to the joint, muscle, etc.





OMM Techniques

- A. The list of types of OMM treatments continues to evolve as research grows and leads to greater utilization.
- B. Soft tissue techniques include, but are not limited to, muscle energy, myofascial release, fascial distortion model, strain counter strain, etc.
- C. Joint techniques include, but are not limited to, articulatory, HVLA, etc.

Medical Acupuncture Techniques

- A. Medical acupuncture techniques are mainly invasive (needle) or noninvasive (acupressure or surface probe).
- B. Invasive techniques utilize a thin metal needle passed through the skin at a specific point.
 - 1. Needles are left in dispersion (no stimulation) or
 - 2. Needles are stimulated either manually or with mild electric current, heat or laser.
- C. Noninvasive techniques utilize a blunt probe compressing the skin and subcutaneous tissues to stimulate acupuncture points, acupuncture channels or meridians.

Traditional Chinese Medicine

- 1. Acupuncture
- 2. Herbal Medicine - Making medicines from natural substances, as plants, bee hives, lizard skins, etc. (AKA Pharmacognosy.) Western uses primarily pharmacology with meds that may be based in naturally occurring substances, as digitalis from purple foxglove, but are now formulated in laboratories.
- 3. Moxibustion - Therapeutic heat with burning herb.
- 4. Tuina - Chinese manipulation. Often similar to OMM, with less segmental localization.

Medical Acupuncture vs OMM vs Standard Tx

*Example: Medical Acupuncture vs OMM vs Standard Tx

- 1. Musculo-skeletal headache treatment: (E-W)
 - 1. GV-20 = Sagittal suture tx'd w/ OMM or medical acupuncture.
 - 2. BL-10 & GB-20 = Occipital nerves at mastoid & C-2,3 tx'd by OMM, injections, and Tx Ex or medical acupuncture.
 - 3. SI-13 & 15, TH-15, GB-21 = Trigger Pts at shoulder posteriorly tx'd w/ OMM, Tx. Ex., injections or medical acupuncture.

Pain Treatment with Acupressure Probe

- A. Trigger points, myofascial muscle tightness and banding, tender points in and around muscles & joints are common areas of pain either primarily at those locations or related to other pathology.
- B. Acupressure treatment directly of these areas can relieve the pain and tight muscle and break the pain cycle.
- C. This is essentially acupuncture treatment without breaking the skin.

Acupressure Probe

- A. The size of a finish nail but with a blunted tip.
- B. Also the size of the tip of a dried pen.





Technique

- A. Palpate myofascial trigger point, muscle spasm, or tender point.
- B. If possible stabilize the area by pinching on either side of the painful area.
- C. Place the probe perpendicular to the painful area.
- D. Firmly press into the area causing a dimple, and hold for approximately 60 seconds.
- E. Remove needle and repeat in related area, if needed.

Effects

- A. At the pressure site: depression with mild starburst like radiations around it.
- B. Mild blanching &/or erythema around the area of the depression.
- C. These signs resolve after a brief period.
- D. Soreness or aching during the procedure with decrease in pain, trigger point, muscle banding following the procedure.
- E. Effect related to stimulating acupuncture point, stimulating endorphins, and decreasing temporarily local blood flow to the area.















*How Do We See Things?

- Dragons & Demons - A matter of point of view.
 - 1. Western - Both are dangerous and need to be eradicated.
 - 2. Eastern - Dragons are protective against our internal and external Demons.

Final thoughts

- If we change our paradigm and open ourselves to different ways of approaching a problem we may increase our therapeutic interventions, improve primary problems, decrease side effects of medical problems and/or side effects of our treatments.

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