Medical Acupuncture: A Primer

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Overview

- Introduction
- Definitions
- History
- Types of acupuncture
- Meridians and Qi
- Proposed mechanisms
- What is a patient to expect...
- Licensing...types of practitioners
- Research Objectives

Introduction

- In US more than 5 million visits per year to acupuncture practitioners
- Main problems
 - LBP and Arthritis
- "Doctors may combine acupuncture and drugs to control surgery related pain"
 - » Oral Surg, Oral Med, Oral Path 1995
- "Using acupuncture may lower the need for conventional pain killers and thus reduce side effects"
 - » J. of Alternative and Complementary Medicine 1996

Definitions

- Acupuncture:
 - Acus (needle) Punctare (to puncture)
- Eastern philosophy:
 - A model of medicine that promotes health through altering Qi (chee) flow within the body
- Western explanation:
 - Acupuncture describes a family of procedures involving stimulation of anatomic locations on the skin by a variety of techniques. There are a variety of approaches to diagnose and treat in American acupuncture that incorporates medical tradition from Chinese, Japanese, Korean, French cultures.

History: Acupuncture in the West

- 1683
 - William Ten Rhijne writes first European text on acupuncture for arthritis
- 1826
 - Franklin Bache North American Medical and Surgical Journal on Acupuncture
- 1892
 - Sir William Osler included a section on the use of acupuncture for "lumbago and sciatica" in 'The Principles and Practice of Medicine' from 1892 through its final edition in 1947

Acupuncture in the US - Present

- 1971: NY Times reporter, James Reston, writes about his experience in China with acupuncture treatment for his postoperative appendectomy pain
- 1976: FDA labels acupuncture needles as "investigator devices" (Class 3)
- 1994: NIH-FDA workshop on acupuncture leads to reclassification of acupuncture needles as "medical devices" (Class 2b) in 1996
- 1997: NIH Consensus Development Conference on Acupuncture with publication of a Consensus Statement affirming the benefit of acupuncture for various medical conditions
- Currently:
 - More than 50 acupuncture schools in the US
 - More than 40 states have statutes regulating acupuncture and regulating acupuncture practice
 - AAMA has trained more than 6000 physicians

NIH Acupuncture Consensus Statement - 1997

- "Promising" results:
 - adult post-operative and chemotherapy nausea and vomiting and in post-operative dental pain.
- "Encouraging" data:
 - Stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, low back pain,carpal tunnel syndrome, and asthma for which "acupuncture may be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program."

Types of acupuncture

- BODY
 - TCM (Traditional Chinese Medicine)
 - Energetics
 - Five element
 - Myofascial
 - Medical
- **SOMATOTOPIC**
 - Hand
 - Auricular
 - Scalp

Types of Acupuncture

- TCM-based acupuncture the most commonly practiced in the United States today by LAc's. It focuses on a diagnosis based on eight principles of complementary opposites (yin/yang, internal/external, excess/deficiency, hot/cold).
- French energetic acupuncture -- mostly used by MD acupuncturists. Meridian patterns are emphasized, in particular the yin-yang pairs of primary meridians.
- **Korean hand acupuncture** based on the principle that the hands and feet have concentrations of qi, and that applying acupuncture needles to these areas is effective for the entire body.
- Auricular acupuncture based on the idea that the ear is a microcosm of the body. This means that applying acupuncture needles to certain points on the ear affects corresponding organs. This type of acupuncture is used widely in treating addiction disorders.
- **Myofascially-based acupuncture** -- often practiced by physical therapists, involves feeling the meridian lines in search of tender points (Ashi points), then applying needles. Tender points indicate areas of abnormal energy flow.
- Japanese styles of acupuncture -- sometimes referred to as "meridian therapy," tend to put more emphasis on needling technique and feeling meridians in diagnosis.

The Acupuncture Needle

- Stainless steel
 - silver, gold
- Thin / solid
- Size
 - 0.5-5.0 inches in length
 - 26-34 gauge
- Technique
 - free hand insertion
 - tube insertion



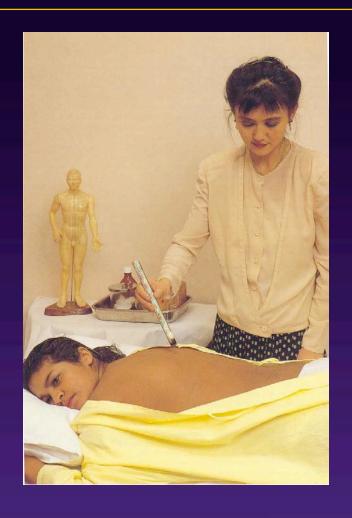
Types of Stimulation

- Manual
- Electro-acupuncture
- Heat
- Laser
- Moxa

MANUAL



MOXA



Mechanisms / Acupuncture

- Eastern explanation
 - Yin / Yang
 - Qi (chee) or energy
- Western explanation
 - Local
 - increase in blood flow
 - Distal
 - Endorphins
 - Neuro-modulation
 - Placebo



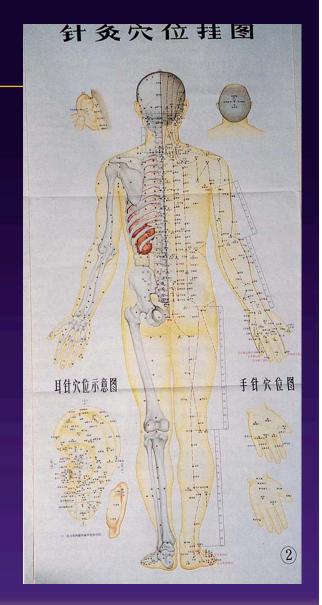
Concept of Yin and Yang

- Expresses a system of relationships
- An interdependence
- Yin = weak, dark, earth
- Yang = strong, light, heaven
- Health: Harmony
- Illness: Disharmony



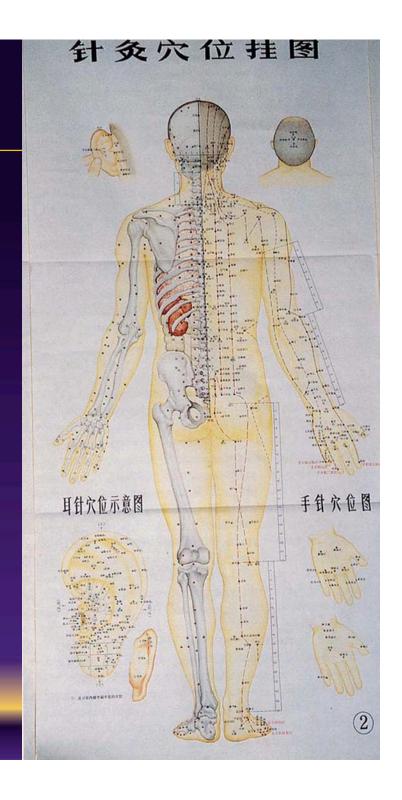
Meridians / Qi

- Health = Pathways of energy,
 Qi flow (like a river) through
 the body
- Disease = disruptions of Qi
- These energy pathways can be needled along organized patterns (meridians / channels) on the surface of the body



Meridians / Qi

- Meridian Systems:
 - Principal meridians
 - Main acupuncture circuits which develop early in embryonic life, associated with classic 12 organs/functions
 - Tendinomuscular meridians
 - Often used for acute injuries
 - Distinct meridians
 - For specific organ problems
 - Shu-Mu Subsystem
 - Enhance energetic levels
 - Curious meridians
 - Often used for hormonal problems

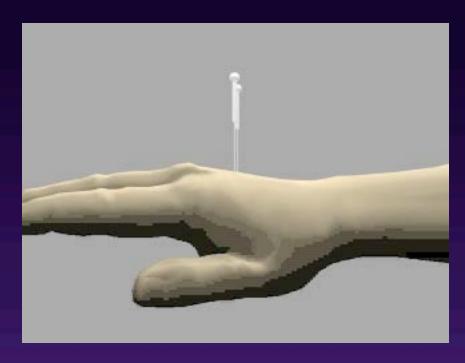




Acupoints/Meridians / Qi

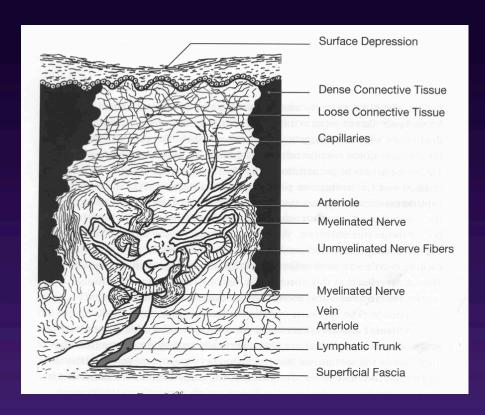
- 1. Technetium 99 studies in France showed linear flow when injected in real points at 6cm/min.
 - 1. Darras et al, Biotherapie,95:1987,13-22
- 2. "Dummy" points did not show linear flow of Tc99

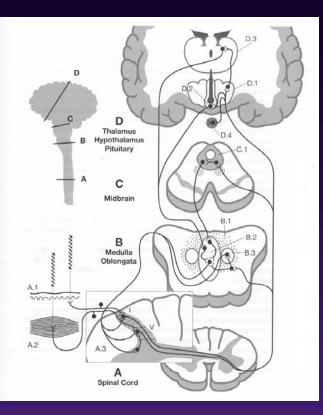
Non-Channel Points



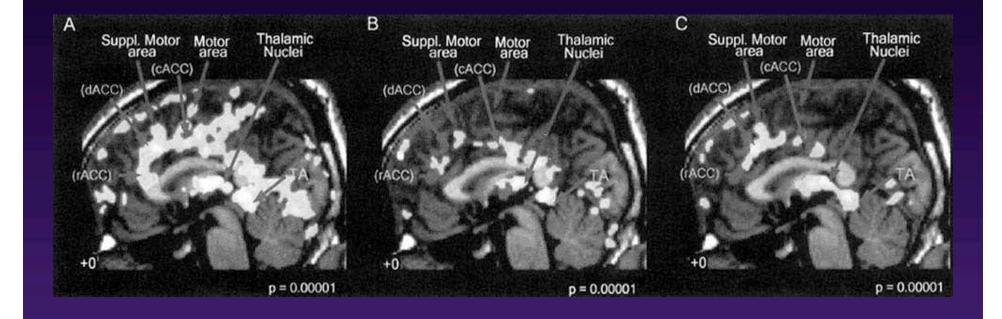
YAOTAN/Yao Tong Dian: Lee et al, Acupuncture in the treatment of renal colic. J Urol 1992 Jan;147(1):16-8

Bioelectric Properties of Acupuncture Points





f MRI Cho-The search for biological evidence / fMRI JACM 2002



Strange Breed by Steve Langille http://www2.hi.net/s4/strangebreed.htm

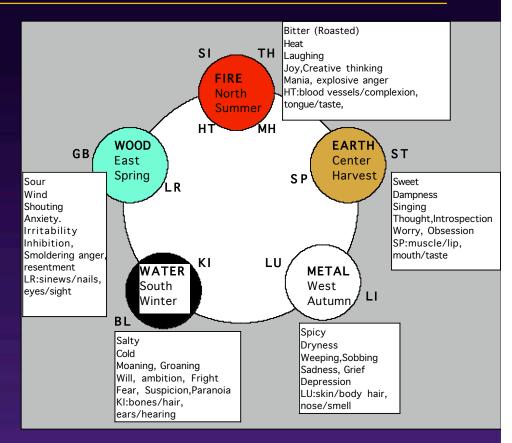


If you are considering referral...

- NY State requirements:
 - Licensed Acupuncturist/LAc (4,050 hours)
 - Certified to use Acupuncture (MD/DDS + 300 hours)
- Indications
- Contraindications:(anticoagulant therapy, pregnancy.
 Pacemaker)
- Should see results by...
- Insurance coverage...

What to expect - Initial interview

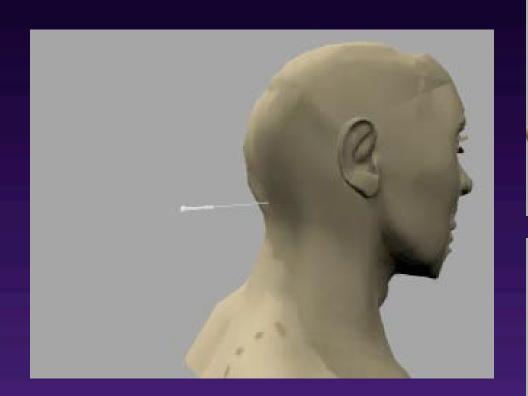
- Assessment
 - History
 - chief complaint
 - secondary issues
 - behavior
 - preferences
 - Examination
 - Pulse
 - Tongue
 - Diagnosis
 - Initial Treatment

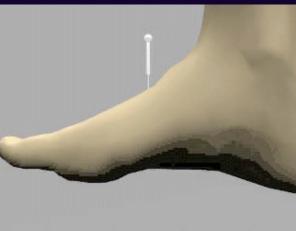


Benign throbbing headache

- Western approach
 - History
 - Exam
 - Imaging
 - Diagnosis
 - Migraine
 - Treatment
 - abortive
 - preventative

- Acupuncture approach
 - History
 - Exam
 - behavior/tongue/pulse
 - Diagnosis
 - Liver yang rising
 - Treatment
 - tonify Liver Yin (Sp6)
 - subdue Liver Yang (GB20)(Liv3)





LR3



GB 20

What to expect - Initial treatment

- Number of Needles
 - acute vs. chronic
 - initial visit vs. veteran
- Placement of needles
- Acupuncture sensations
 - Insertion discomfort
 - de Qi sensation
 - transient soreness
 - tired / fatigue, euphoria
- Follow up / number of appointments



Acupuncture Studies

- GI
- Respiratory
- Cardiovascular
- Endocrine
- Pregnancy
- Immune / Cancer
- Dermatology
- Neurology
- Urology
- Rheumatology

Acupuncture / Idiopathic Headache

Cochrane Database 2001

- Objective:
 - acupuncture > sham
 - as effective as other conservative interventions
- Selection criteria
 - randomized (quasi-randomized)
- Results: methods were poor
 - 26 trials (1151 patients)
 - significant improvement in some studies
 - comparison to other modalities: contradictory
- Conclusions:
 - evidence supports value of acupuncture
 - quality and amount not convincing
 - need for better trials

Acupuncture / Chronic Headache

AJ Vickers et al BMJ. 2004 March 27; 328 (7442): 744

- Design: Randomised, controlled trial
- Methods: 401 patients with chronic headache, predominantly migraine. Patients were randomly allocated to receive up to 12 acupuncture treatments over three months or to a control intervention offering usual care. Headache score, SF-36 health status, and use of medication were assessed at baseline, three, and 12 months. Use of resources was assessed every three months
- **Results** Acupuncture leads to persisting, clinically relevant benefits for primary care patients with chronic headache, particularly migraine.

Underlying theme: "Inconclusive"

- Small numbers
- Not well controlled
- Not specific diagnosis
- Different types of acupuncture used
- Duration of treatment varied
- Control groups
- What is the Sham used
- Not always blinded
- AND MORE!!!

The Future = RESEARCH

- National Center for CAM (NCCAM)
 - http://nccam.nih.gov
- Establishe by Congress in October 1998 with a budget of approx: \$120 million per year (through 2005)
- Dedicated to exploring complementary and alternative healing practices in the context of rigorous science, training complementary and alternative medicine (CAM) researchers, and disseminating authoritative information to the public and professionals.
 - Research funding
 - Research training and career development
 - Outreach:professional and public education
 - Integration:CAM and ConventionalMedicine

Concluding Remarks

- Acupuncture should not be considered a LAST RESORT
- Acupuncture is best utilized as a complementary technique
- Generally safe thousands of years of experience
- There is some evidence of efficacy
- There are well-designed studies in progress...and a significant amount of public funds allocated to insure that quality research studies will be conducted.

THE BEGINNING