Magical Meridians
or
Punitive Placebos

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Outline
1. Philosophy
2. Anatomy and Physiology
3. Pathogenesis
4. Diagnosis
5. Treatment Modalities
6. Data and examples

“1 feel like my son spent his first year of life in his crib in a darkened room”

- TM a 41 yo married mother of two with debilitating headaches. Onset at 26 and worse after children…
- Quit work as photographer
- Headache calendar 25 days per month
- Had seen a number of doctors with marginal successes
- Opioids, TADs, beta-blockers, Bio-feedback
Origin of Disharmony: Causes of Disease

Three causes (Manifestations>>etiologies)
1. External (Pernicious Influences)
   - Wind, fire, damp, cold, dry, summer heat
2. Internal (Emotions)
   - Joy, thought, grief, fear, anger, anxiety, sorrow
3. Non-external/non-internal
   - Indiscretions of: sex, diet, exertion
   - Trauma and parasites
   - Wrong treatment
     - Oppression, taxes, indignity
Oriental Medicine’s Black Bag

- Diet Therapy
- QiQong
- Tui Na
- Zhong Yao
- Zhen Jiu

What is Acupuncture?

- 361-365 named points
  - 12 Principal and 8 Curious Meridians
  - Many additional points
- Delivery
  - Needle
  - moxibustion
  - Cupping
  - Gua sha
  - Lasers

Acupuncture Points

- Each is associated with an “organ”
- Each has set of attributions & indications
  - Energetic and informational access loci
- Can be used for local or distant effects
  - Can be used for superficial, deep and psycho-emotional effects
  - Internal/External Dragons
- Needles 3-16 cm long & 0.20-0.5 mm thick
- 1.0-12 cm deep
- Bio-electric/bio-mechanical properties
Western Review

- Dutch Traders and Jesuits 17th
  - Acu & punctura
- W.T. Rhijne 1683
- History of Surgery, Fr 1774
- Sarlandiere and Leyden jars 1826
- B. Bache 1825
- Sir Osler 1892
- S. Morand 1930-50
  - Meridian, Qi, Jing
- James Reston 1971
- Pomeranz 1980s

Can 3.2 million Americans be wrong? NCCAM 2007 Survey data

Always be ready for any surprises in life...
De qi and analgesia onset

Nei Guan = Pericardium 6

- Clams Shen, restores consciousness, firms will and animates Blood. Moves Qi and Blood in chest. Used to reverse Qi stagnation in the chest. Subdues rebellious Qi.

- Nausea, median nerve entrapment, hiccups

Carpel Tunnel, the Brain and Acupuncture

- Vitaly Napadow

Opioid peptides and opioid receptors involved in analgesia elicited by electroacupuncture of different frequencies: (a) 2 Hz (red), 100 Hz (blue), 15 Hz (purple). Dyn (dynorphin A); b-End (b-endorphin); Em (endomorphin); Enk (enkephalins).


Getting Better and at Heron School of Art
Table 2. Plasma β-endorphin and cortisol levels and magnitude of change after treatment. $n = 20$.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>Before treatment</th>
<th>After treatment</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>β-Endorphin (ng/ml)</td>
<td>Sham</td>
<td>0.42 (0.34–0.45)</td>
<td>0.35 (0.32–0.43)</td>
<td>0.90 (0.75–1.1)</td>
</tr>
<tr>
<td></td>
<td>Electro-acupuncture</td>
<td>0.30 (0.09–0.38)</td>
<td>0.48 (0.43–0.49)</td>
<td>1.70 (1.2–3.7)</td>
</tr>
<tr>
<td>Cortisol (μg/dl)</td>
<td>Sham</td>
<td>7.4 (6.1–8.25)</td>
<td>7.75 (6.8–10.25)</td>
<td>1.15 (1–1.46)</td>
</tr>
<tr>
<td></td>
<td>Electro-acupuncture</td>
<td>9.25 (5.7–12.8)</td>
<td>6.35 (5.5–7.45)</td>
<td>0.71 (0.63–0.96)</td>
</tr>
</tbody>
</table>

Knee Osteoarthritis and WOMAC

![Graph showing WOMAC scores over time for Verum Acupuncture and Sham Acupuncture.](image)

Acupuncture, Fibromyalgia and Brain

- Those receiving true acupuncture had
  - Short-term increase in mor binding
  - Long-term increase in mor binding
  - Long-term increase in mor binding associated with greater pain reductions
  - Cingulate cortex, insula, caudate, thalamus & amygdala

- Those receiving sham acupuncture had
  - No increase in mor binding or analgesia

Acute Low Back Pain & Choice of Care

Figure 2. Median bothersomeness of worst symptom (LBP, sciatica, or numbness).

Spine • Volume 32 • Number 2 • 2007

Traditional Diagnosis & Treatment for LBP

- N=150
- Diagnosis
  - Qi and or Blood Stagnation for 85%
  - Kidney Def. 33-51%
- Treatment - average of 12-13 needles
  - 85 different loci in total, 5 used more than 20x
  - 50% used adjunctive therapy
  - Heat and or cupping
  - “the effectiveness of acupuncture for low back pain remains unclear.” LBP Cochrante systematic review

Mean (+/-) SE development of low back pain intensity in the 3 treatment groups

NNT for meaningful functional improvement:

- Short term benefit
- Persistent benefit

GERAC Chronic LBP

Table 4: Disease Outcome: Behaviors Comparison of Treatment Response & Results After Randomization

<table>
<thead>
<tr>
<th>Treatment Response</th>
<th>Group 1</th>
<th>Group 2</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Improvement</td>
<td>0.3 (0.1 to 0.5)</td>
<td>0.4 (0.2 to 0.6)</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Functional Status</td>
<td>1.2 (1.0 to 1.4)</td>
<td>1.3 (1.1 to 1.5)</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Acupuncture effects of decreased limbic activation and increased corticolimbic connectivity could be used as neuroimaging biomarkers to predict acupuncture treatment response in depression.

Safety

- Site pain: ~3%
- Retained needle: 0.5%
- Bleed/hematoma: 2-3%
- Vaso-vagal: ~0.5%
- Pneumothorax: <0.001%
- Infection: <0.05%

Palmer’s Putative Palliative Points

- Mechanism of maldynia modulation
  - Peripheral and central
  - A-β, A-δ and C-fibers
- Specific and nonspecific effects
  - Amygdala, insula and hypothalamus
  - Dorsolateral Prefrontal and ACC
- Analgesia consistent in short-term
  - Expectation influences effect
  - Genetic component: “responders”
    - CKK receptors and levels
    - Mu-receptors and endorphin levels

Acupuncture and Costalgia

1. Electroacupuncture > manual
   - 3 – 10 treatments over 14 – 28 days
   - 25 – 30 min. @ $45-100 per
2. Most beneficial for those with
   - Knee osteoarthritis
     - Analgesia < functionality
   - Dental / facial pain
     - Clinical and experimental
   - LBP acupuncture ≥ conventional
   - S Best in combination

2. ARCH INTERN MED/VOL 164, JAN 12, 2004


6. Neuroimage. 45(3):940-9, 2009 Apr 15


8. Arch Intern Med. 2009;169(9):858-866


11. American Academy of Medical Acupuncture
   www.medicalacupuncture.org