Energy Medicine Pilot Study

Heart Wave – ECG Analysis

- Overview of the study
- The heart, ECG, and HRV
- Standard HRV Measures
- Synchrony Measures
- Practice
- Question and Answer
THANK YOU

Emerald Gate

Garret Yount (Co-PI)
IONS Science Team
Dee Merz
Joyce Anastasia
Meredith Pierson
Heather Mandell
Sue Steele
Steven Swanson
Entire IONS Staff
Energy Medicine Practitioners
Participants
noetic.org/explore-energy-medicine
Energy Medicine Pilot Study

- 30-minute energy medicine session
- 196 participants seeking relief from hand & wrist pain

Measurements (PRE) → Measurements (POST) → Measurements (Follow-up) 3 weeks

- Prospective, within-subject design
- No control condition (all subjects received authentic treatment)
Pain Outcomes Improved

- Worst pain last week
- Least pain last week
- Current pain
- Normal Work Interference
- Relationship Interference
- Enjoyment Interference
The Physical Heart

- Four Chambers
- Two Atria, Two Ventricles
- Pumps 1,900 gallons of blood per day
- 100,000 times a day
- Over 2.5 billion beats per life!
The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart.

– Helen Keller
The Spiritual Heart

Heart Chakra

I Am Love

Sanskrit name: Anahata
Location: 4th Chakra, Center of Chest
Aspects: love, relationships, compassion, forgiveness, harmony

Meditation mantra: Yam
Supportive Stones: Green Aventurine, Rose Quartz, Rhodonite, Jade, Malachite, Amazonite
The Electromagnetic Field of the Heart

Electric field - 60x > brain

Magnetic field – 100x > brain

Detected up to 3 ft from body
Electrocardiography (ECG or EKG)
Heart Rate Variability
Autonomic Nervous System

Fight or Flight
Increase Heart Rate

Rest & Digest
Decrease Heart Rate
Respiratory Sinus Arrhythmia

Yasuma, 2004

= ECG
= Resp
Electromagnetically Shielded Chamber

Steel walls
8 ft. x 8 ft. x 7.5 ft.
Electromagnetically Shielded Chamber
## Time Domain HRV Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>First 6 Minutes Mean (sd) n = 186</th>
<th>Last 6 Minutes Mean (sd) n = 186</th>
<th>p-value</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDR (Hz)</td>
<td>0.22 (0.06)</td>
<td>0.23 (0.07)</td>
<td>0.029</td>
<td>↑</td>
</tr>
<tr>
<td>PNS index</td>
<td>-0.11 (1.68)</td>
<td>0.07 (1.74)</td>
<td>&lt;0.000005*</td>
<td>↑</td>
</tr>
<tr>
<td>SNS index</td>
<td>0.84 (1.75)</td>
<td>0.65 (1.81)</td>
<td>0.0003*</td>
<td>↓</td>
</tr>
<tr>
<td>Mean RR (ms)</td>
<td>937.2 (77.78)</td>
<td>958.9 (185.98)</td>
<td>&lt;0.000005*</td>
<td>↑</td>
</tr>
<tr>
<td>Mean HR (bpm)</td>
<td>66.2 (11.96)</td>
<td>64.83 (12.17)</td>
<td>&lt;0.000005*</td>
<td>↓</td>
</tr>
</tbody>
</table>
# Frequency Domain HRV Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>First 6 Minutes Mean (sd) n = 186</th>
<th>Last 6 Minutes Mean (sd) n = 186</th>
<th>p-value</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFpower (ms²)</td>
<td>1072.86 (1714.84)</td>
<td>1006.81 (1565.38)</td>
<td>0.729</td>
<td>↑</td>
</tr>
<tr>
<td>HFpower (ms²)</td>
<td>911.65 (3898.4)</td>
<td>938.26 (3559.51)</td>
<td>0.012</td>
<td>↑</td>
</tr>
<tr>
<td>HFpeak (Hz)</td>
<td>0.185 (0.056)</td>
<td>0.191 (0.058)</td>
<td>0.0044*</td>
<td>↑</td>
</tr>
<tr>
<td>LF/HF ratio</td>
<td>3.27 (3.46)</td>
<td>2.94 (3.53)</td>
<td>0.076</td>
<td>↓</td>
</tr>
</tbody>
</table>
Frequency Measures

HF – Green 0.15 - 0.40 Hz
LF – Yellow 0.04-0.15 Hz

https://help.elitehrv.com/article/159-hrv-frequency
## Frequency Domain HRV Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>First 6 Minutes Mean (sd) n = 186</th>
<th>Last 6 Minutes Mean (sd) n = 186</th>
<th>p-value</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFpower (ms²)</td>
<td>1072.86 (1714.84)</td>
<td>1006.81 (1565.38)</td>
<td>0.729</td>
<td>↑</td>
</tr>
<tr>
<td>HFpower (ms²)</td>
<td>911.65 (3898.4)</td>
<td>938.26 (3559.51)</td>
<td>0.012</td>
<td>↑</td>
</tr>
<tr>
<td>HFpeak (Hz)</td>
<td>0.185 (0.056)</td>
<td>0.191 (0.058)</td>
<td>0.0044*</td>
<td>↑</td>
</tr>
<tr>
<td>LF/HF ratio</td>
<td>3.27 (3.46)</td>
<td>2.94 (3.53)</td>
<td>0.076</td>
<td>↓</td>
</tr>
</tbody>
</table>
Heart Rate Synchrony Analysis
Between Practitioner and Participant
1. Energy Medicine Treatments for Hand and Wrist Pain: A Pilot Study

2. Possible negentropic effects observed during energy medicine sessions

3. Effects of the local and solar/geomagnetic environment on the efficacy of energy medicine treatments: An exploratory study


5. Spectroscopic analysis of water treated by and in proximity to energy medicine practitioners: An exploratory study
Practice