Clinical Case Series Findings:

- 7 patients were successfully treated with acupuncture for anxiety and/or panic attack. 5 of these patients had prior experience of injury (4 with car accidents). Of these patients, 1 had previous minimal needling and 1 had previous acupuncture without minimal needling. Not only were they successfully treated with minimal needling but also had improvement in their HRV during treatment. Strong needle stimulation is not necessary to elicit autonomic, neurogenic or somatosensory response. Not only was there sensitivity to needling but an improvement in autonomic response. 3 of these patients had medications, not only providing relief but improved HRV.

Introduction and Objectives:

- The objective was to study the effects of minimal needling using Heart Rate Variability (HRV) to identify successful acupuncture treatment outcomes.
- The aim was to develop pragmatic protocols for its use.
- Acupuncture is a component of traditional Chinese medicine. There are a variety of techniques, but an understanding of the underlying mechanism is essential. In acupuncture, we refer to needling as an intervention, not a treatment.

Methods:

- Patients presented to Acupuncture clinic with diagnosis of anxiety and/or panic attack. All received Traditional Chinese Medicine (TCM) body acupuncture according to their presenting pattern and diagnosis. Patients were not excluded from study if on SSRIs or antidepressant medications. Five patients reported on here were sensitive to needling with few and avoid all but gentle needling. They received minimal needling (10 needles or less, 14 or 16 gauge needles) no needle stimulation at the time of needling nor afterwards. Needle placement was left in place for at least 20 minutes. In addition, all patients reported on had adequate data (no artifacts), enough data sessions in succession, and could be positioned for data recording. HRV monitoring. Outcome measures were patients' clinical response. Heart rate was measured with a Nonin Pulse Oximeter during treatment after needle placement, then data analyzed using Vivosense software. LF/HF (Low-frequency/High frequency) trends were chosen for analysis among the other parameters (Sample Entropy, FRQ, HF, Poincaré plots) were also measured. The first 5 minutes of treatment were compared with the second 5 minutes of treatment. Their results are compared for illustration to patients who also presented with anxiety, but no needling sensitivity. All patients responded to treatment, no “nonresponders” included in this presentation.

Results:

- Of the 7 patients, 6 showed individual treatment success with one of the patients experiencing an increase in one particular treatment (needle gauge, acupuncture point, acupuncture technique, or acupuncture stimulation intensity) was another.
- Factors that demonstrated the LF/HF ratio of the first 5 minutes after needle placement to the second 5 minutes.
- HF analysis shows, in general, an increase in HRV, providing a rationale for choosing minimal needling sensitive patients and nonresponsive patients alike.
- Both groups showed improvement in HRV response over the course of treatment.

Discussion:

- The data of these anxiety patients is consistent with the findings of many small case studies of minimal needling used in patients with notable positive clinical responses.
- This study is looking at very short term HRV responses in order to capture the neurological response to needling. The data of these anxiety patients is consistent with the findings of many small case studies of minimal needling used in patients with notable positive clinical responses.
- Although physiological models exist for minimal needling, acupuncture needling can be considered a subthreshold innocuous stimulation. The physiological phenomenon of “de qi” may be appropriate for a wide variety of pain thresholds.
- Other models could be expanded to include subtle immunological components, a sort of hormesis.
- The data of these anxiety patients is consistent with the findings of many small case studies of minimal needling used in patients with notable positive clinical responses.

Conclusion:

- Is minimal needling just placebo? Acupuncture Clinical Case Study: Heart Rate Variability Monitoring and Clinical Outcomes in Anxiety Patients

Author: Kristen Sparrow, MD
Private Practice San Francisco, California USA

Negative Values Indicate a Decrease in Stress Response and Increase in HRV During Treatment