

Research Design: Can A Bio-Electric Charge Be Measured At Acupuncture Points Explaining The De Qi Sensation?

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Background

The acupuncture De Qi sensation is the sensation felt by patients when the Qi Energy “arrives” during needling. Many practitioners consider De Qi a sign of successful acupuncture needling.

The nature of the sensation is subjective and variable. One study listed the most common descriptions as ‘distended,’ ‘sore,’ ‘electric,’ or ‘numb.’ The De Qi sensation is distinct from the sensation of the acupuncture needle penetrating skin.

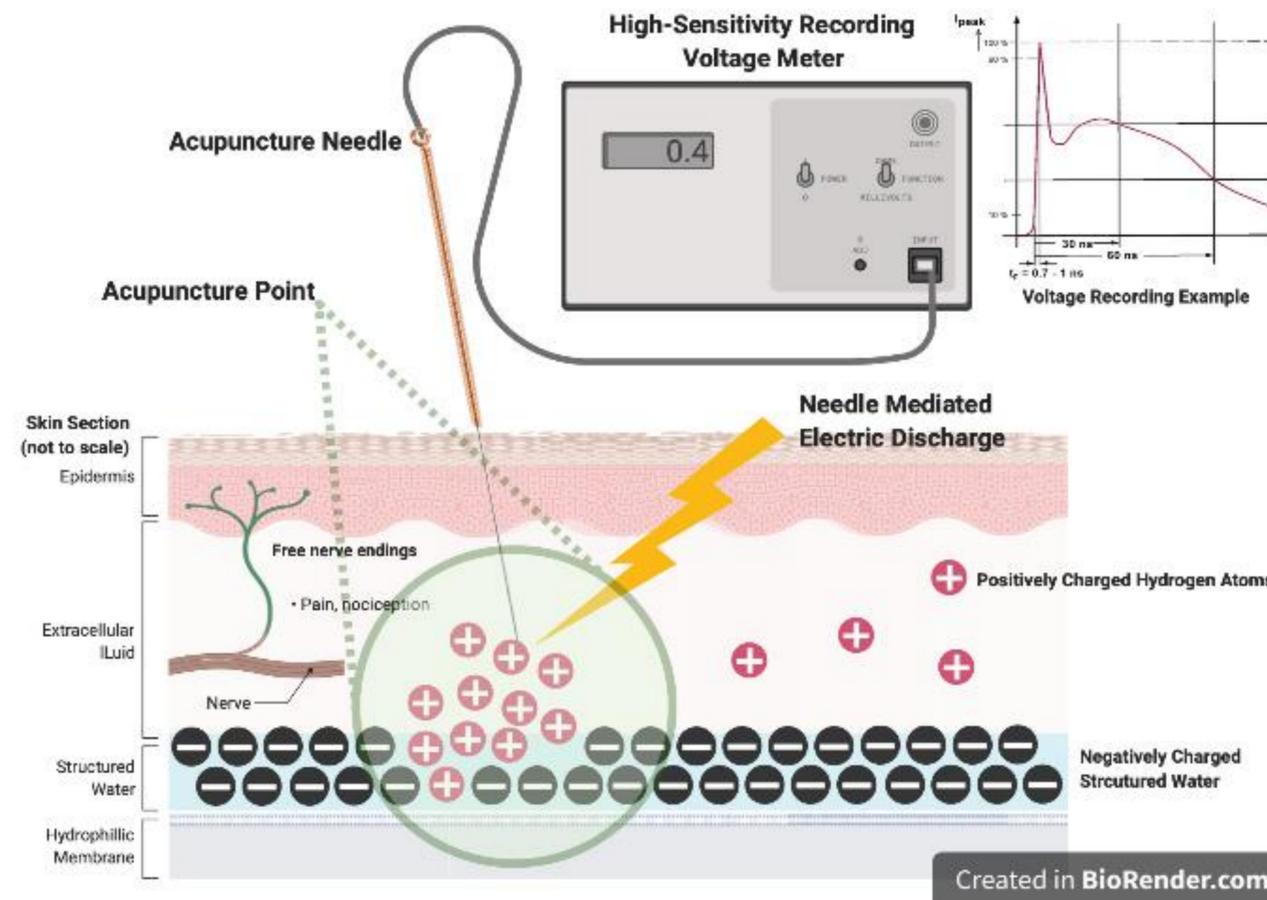
The physiological mechanism of De Qi is not well understood. Researchers attempting to identify the source of De Qi have investigated bio-mechanical, bio-electrical, and neurological mechanisms. Recent research has focused on mechanical stimulation of nerves by needling techniques. Less is known about the electrical characteristics of points and if they may play a role in forming the De Qi sensation.

Acupuncture points have less electrical resistance than surrounding skin. Yet, there is little research investigating if there is an electrical potential associated with the points. If present, the release of an electric charge by the acupuncture needle might explain the De Qi sensation felt by patients during an acupuncture treatment.

Research Objectives

The purpose of this study design is two-fold.

- 1) Design an inexpensive method for measuring small, subcutaneous, millivolt charges in human tissue.
- 2) Measure the electric potential at acupuncture points. Compare those results to measurements made at non-points.



Methods

This single-case experiment will use one experienced practitioner and one experienced patient. The practitioner and patient will be blinded to measurements of the voltage meter during needling. This will reduce, but not eliminate, the amount of bias influencing results.

Subcutaneous measurements will be made at the acupuncture point, Colon 4. Similar measurements will be made at areas near Colon 4. The patient’s determination of a De Qi sensation versus no De Qi sensation will be checked against measurements made by the voltage meter.

Voltage measurements will be made with a highly-sensitive voltage meter attached by insulated electrical leads to gold plated spring handled acupuncture needle. (At this point a suitable device has not been identified).

The needle itself will be insulated from the practitioner’s fingers by non-conducting gloves to prevent contamination by electrical “noise” from the practitioner.

Discussion

We know that the body can generate electric charges. Physicians measure these charges as part of routine health care, electrocardiograms, for example.

Researchers have also measured electric potential within individual cells and on cell membranes.

If the body stores a small, bio-electric charge at acupuncture points. And if acupuncture needles discharge this potential. The resulting electric current might stimulate nearby nerve endings causing a De Qi sensation.

Poster References

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