

Brain activity changes measured by EEG and fMRI after complex somatosensory stimulation with acupuncture needles - an experimental study with healthy volunteers

Summary:

The aim of the study is to evaluate whether the point locations chosen for a complex somatosensory stimulation with acupuncture needles have an essential impact on the change of brain activity in healthy volunteers. For this, we compare three different point locations (one acupuncture point and two non-acupuncture points) stimulated with acupuncture needles. Two measurements each with 20 subjects are planned.

- a) With the EEG measurements the impact of the stimulation's location on background rhythm especially in the somatosensory cortex is evaluated.
- b) With the fMRI (functional magnetic resonance imaging) measurements the impact of the stimulation's location on BOLD (Blood Oxygen Level Dependency) signals and on functional connectivity is evaluated.

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