Deqi sensations without cutaneous sensory input: results of an RCT

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Background: Deqi is defined in relation to acupuncture needling as a sensory perception of varying character. In a recently published sham laser validation study, we found that subjects in the verum and the sham laser group experienced deqi sensations. Therefore, we aim to further analyze whether the perceptions reported in the two study arms were distinguishable and whether expectancy effects exhibited considerable impact on our results.

Methods: A detailed re-analysis focusing on deqi sensations was performed from data collected in a previously published placebo-controlled, double-blind, clinical cross-over trial for a sham laser evaluation. Thirty-four healthy volunteers (28±10.7 years; 16 women, 18 men) received two laser acupuncture treatments at three acupuncture points LI4 (hégue), LI7 (liéique), and LR3 (tāichong); once by verum laser and once using a sham device containing an inactive laser in randomized order. Outcome measures were frequency, intensity (evaluated by visual analogue scale; VAS), and quality of the subjects’ sensations perceived during treatments (assessed with the “acupuncture sensation scale”).

Results: Both, verum and the sham laser acupuncture result in similar deqi sensations with regard to frequency (p-value = 0.67), intensity (p-value = 0.71) and quality (p-values between 0.15–0.98). In both groups the most frequently used adjectives to describe these perceptions were “spreading”, “radiating”, “tingling”, “tugging”, “pulsing”, “warm”, “dull”, and “electric”. Sensations reported were consistent with the perception of deqi as previously defined in literature. Subjects’ conviction regarding the effectiveness of laser acupuncture or the history of having received acupuncture treatments before did not correlate with the frequency or intensity of sensations reported.

Conclusions: Since deqi sensations, described as sensory perceptions, were elicited without any cutaneous sensory input, we assume that they are a product of non-specific effects from the overall treatment procedure. Expectancy-effects due to previous acupuncture experience and belief in laser acupuncture do not seem to play a major role in elicitation of deqi sensations. Our results give hints that deqi might be a central phenomenon of awareness and consciousness, and that its relevance should be taken into account, even in clinical trials. However, further research is required to understand mechanisms underlying deqi.

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Kommentar

In dieser Arbeit untersuchen Salih et al. Teilaspekte einer vorangegangenen Evaluation der Validität von Sham-Laser als Placebo bei Akupunkturstudien. Ein Sham-Laser ist ein inaktiver Laserpen, der optisch und akustisch nicht von einem aktiven Laser unterschieden werden kann – auch vom Behandler selbst nicht. Das rote Indikatorlicht wird von dem Sham-Laser genauso wie von dem Verum-Laser emittiert, der unsichtbare und energiereiche Anteil der Laserstrahlung allerdings fehlt.

Der Fokus dieser Analyse liegt auf den De-Qi-Empfindungen, die während der Laser-/Sham-Laserbehandlung auftreten. Erfasst wurden Häufigkeit, Intensität (mittels Visueller Analogskala) und Qualität (mittels „acupuncture sensation scale“) des empfundenen De-Qi-Gefühls. 34 Probanden wurden in einem Cross-over-Design untersucht und nach den subjektiven Empfindungen während der Behandlung befragt. Im Rahmen des Cross-over-Design erhielt jeder Proband jeweils sowohl eine Verum- als auch eine Sham-Behandlung in zufälliger Reihen-
Acupuncture in Critically Ill Patients Improves Delayed Gastric Emptying: A Randomized Controlled Trial

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Background: Malnutrition remains a severe problem in the recovery of critically ill patients and leads to increased in-hospital morbidity and in-hospital stay. Even though early enteral nutrition has been shown to improve overall patient outcomes in the intensive care unit (ICU), tube-fed administration is often complicated by delayed gastric emptying and gastroesophageal reflux. Acupuncture has been successfully used in the treatment and prevention of postoperative nausea and vomiting. In this study we evaluated whether acupuncture can improve gastric emptying in comparison with standard promotility drugs in critically ill patients receiving enteral feeding.

Methods: Thirty mechanically ventilated neurosurgical ICU patients with delayed gastric emptying, defined as a gastric residual volume (GRV) > 500 mL for ≥ 2 days, were prospectively and randomly assigned to either the acupoint stimulation group (ASG; bilateral transcutaneous electrical acupoint stimulation at Neiguan, PC-6) or the conventional promotility drug treatment group (DTG) over a period of 6 days (metoclopramide, cisapride, erythromycin). Patients in the ASG group did not receive any conventional promotility drugs. Successful treatment (feeding tolerance) was defined as GRV < 200 mL per 24 hours.

Results: Demographic and hemodynamic data were similar in both groups. After 5 days of treatment, 80 % of patients in the ASG group successfully developed feeding tolerance versus 60 % in the DTG group. On treatment day 1, GRV decreased from 970 ± 87 mL to 346 ± 71 mL with acupoint stimulation (P = 0.003), whereas patients in the DTG group showed a significant increase in GRV from 903 ± 60 mL to 1040 ± 211 mL (P = 0.015). In addition, GRV decreased and feeding balance (defined as enteral feeding volume minus GRV) increased in more patients in the ASG group (14 of 15) than in the DTG group (7 of 15; P = 0.014). On treatment day 1, the mean feeding balance was significantly higher in the ASG group (–727 ± 259 mL) than in the DTG group (–121 ± 128 mL).