Acupuncture for pain management after cesarean section – a randomised placebo controlled investigation

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OBJECTIVE
Pharmacological approach for pain control in patients after caesarean section (CS) is often insufficient (1,2). Acupuncture is a promising tool to supplement conventional pain treatment after CS (3). The aim was to investigate the effectiveness of acupuncture as an additional method of analgesia in patients after CS in comparison with placebo intervention.

METHODS

DESIGN
- Randomised (randomisation concealed from personnel)
- Study groups: verum acupuncture (N=60) vs. placebo acupuncture (N=60)
- Blinded (patients, staff, assessors of the outcome)
- Mono-center (university hospital) from Sep 2015 to May 2017
- Approved by the Institutional Ethics Committee
- Registered at clinicaltrials.gov as NCT 02364167

PARTICIPANTS

Inclusion Criteria:
- scheduled to elective CS procedure in spinal anaesthesia (SpA)
- 19-45 years of age
- ASA physical status 1-3

Exclusion Criteria:
- SpA contraindicated
- chronic pain conditions (under opioid medication)
- history of psychiatric disorders
- CNS-targeted medication
- unable to understand the consent form and fill in the study questionnaire

INTERVENTION

- Body and ear acupuncture (Fig. 1)
- Placebo procedure (Fig. 2 C & D)

OUTCOME MEASURES

- Pain intensity on movement and at rest using Verbal Rating Scale (VRS-11; Fig. 3)
- Analgesics requirement after CS surgery
- Life quality items
- Patients’ satisfaction with pain treatment
- Recovery profile (ambulation)
- Quality of blinding (patient and study personnel)

RESULTS

FLOW OF THE STUDY

- Baseline data (demographics and perioperative parameters) were comparable between both study groups
- Patients from acupuncture group reported less pain on movement on the 1st day following CS (4.7 ± 1.7 vs. 6.0 ± 2.0; mean ± SD; P=0.001) in comparison with patients, who received placebo intervention (Fig. 5A), whereas the requirement for analgesic medication was comparable
- Patients, who received acupuncture, returned to their daily activity and ambulated earlier than the patients from placebo group (P<0.01; Fig. 5B)
- Quality of blinding was sufficient (the majority of patients believed, that they had received acupuncture)
- Other outcome parameters were comparable between study groups

CONCLUSION

- Acupuncture improves clinically relevant pain and accelerates the ambulation of patients after caesarian section in comparison to placebo procedure with no side effects
- With additional consideration of personnel and time expenditures, acupuncture can be recommended for postoperative pain control in patients scheduled for caesarian section in spinal anaesthesia

REFERENCES