

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Electroacupuncture to alleviate postoperative pain after a laparoscopic appendectomy: study protocol for a three-arm, randomised, controlled trial
AUTHORS	Lee, Seunghoon; Nam, Dongwoo; Kwon, Minsoo; Park, Won Seo; Park, Sun Jin

VERSION 1 - REVIEW

REVIEWER	Lixing Lao The University of Hong Kong, Hong Kong, China Hoder of a grant on "Acupuncture for postoperative pain - A randomized control trial"
REVIEW RETURNED	16-Feb-2017

GENERAL COMMENTS	<p>1. Exclusion criteria - Though Park sham device will be used, if the patients have prior experience on acupuncture within 6 weeks, would it compromise the effect of blinding in placebo acupuncture procedure?</p> <p>2. Treatment - Heat lamp has therapeutic effect in addition to keeping patient warm. Would using heat lamp in both groups cause so called ceiling effect which would minimize the difference of effect size?</p> <p>- Different frequencies were used at different site (distal:2/120Hz; local:120Hz). Although you have quote a paper proposing synergistic effect of different EA frequencies but it was on normal tissues and suggesting the use of alternating frequencies at the same site. The authors may have overlooked the reference and misinterpreted the conclusion. Without a comparison to a single frequency or single site, how sure the the proposed combination at different sites would not weaken the effect of acupuncture rather than maximize its effect? Therefore, in my opinion, this might not be the strength of the study, rather it is the limitation of the study.</p> <p>3. DSMB - It is critical to have a DSMB for the trial. However, it is not clear what the role of the DSMB members. According to the description, all the decision and action will be made by the Principal Investigator and there is nothing to do with the DSMB. The authors should clearly describe the role and qualification of the DSMB members.</p> <p>4. Limitation - Acupuncturist could not be blinded. Would there be any further discussion on that? Would any measures be taken to minimize the bias from the unblinded acupuncturists?</p>
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	5. Others - CONSORT check list not provided.
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REVIEWER	Jordan A. Gliedt Logan University; USA
REVIEW RETURNED	14-Apr-2017

GENERAL COMMENTS	The authors have constructed a well designed study protocol.
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Lixing Lao

Institution and Country: The University of Hong Kong, Hong Kong, China

Please state any competing interests or state 'None declared': Hoder of a grant on "Acupuncture for postoperative pain - A randomized control trial"

Please leave your comments for the authors below

1. Exclusion criteria

- Though Park sham device will be used, if the patients have prior experience on acupuncture within 6 weeks, would it compromise the effect of blinding in placebo acupuncture procedure?

Authors' response: We agree that it is difficult to perfectly blind participants in an acupuncture trial; this study endeavoured to blind participants by using placebo acupuncture (e.g. using a Park Sham device) and restrict their prior experience on acupuncture. Better results would be attained if participants who had undergone acupuncture within the last few years were excluded. However, as most participants had prior experience and received acupuncture treatment routinely in South Korea, restriction of prior experience on acupuncture treatment may have not much meaning for blinding the participants. A test for assessing the efficacy of blinding will be performed at the end of the trial, and whether or not blinding was effective in this trial will be discussed.

2. Treatment

- Heat lamp has therapeutic effect in addition to keeping patient warm. Would using heat lamp in both groups cause so called ceiling effect which would minimize the difference of effect size?

Authors' response: We agree with your point. We believe that participants may feel cold if their abdomen is left uncovered for over 20 minutes, leading to an increased level of postoperative pain. So, we will use a heat lamp on minimum power, as described.

- Different frequencies were used at different site (distal:2/120Hz; local:120Hz). Although you have quote a paper proposing synergistic effect of different EA frequencies but it was on normal tissues and suggesting the use of alternating frequencies at the same site. The authors may have overlooked the reference and misinterpreted the conclusion. Without a comparison to a single frequency or single site, how sure the the proposed combination at different sites would not weaken the effect of acupuncture rather than maximize its effect? Therefore, in my opinion, this might not be the strength of the study, rather it is the limitation of the study.

Authors' response: We think there is still an ongoing debate regarding the optimal EA frequency to treat pain. We agree that there is no conclusive evidence indicating that different EA frequencies (distal: 2/120 Hz, local: 120 Hz) have synergistic effects. However, we thought different frequencies (distal: 2/120 Hz and local: 120Hz) would work different mechanisms (extrasegmental vs. segmental effect of acupuncture) and utilized this in the trial. We have already adopted this protocol in our hospital, with a promising positive effect in reducing postoperative pain. As per your suggestion, we have added the sentence "although there was no conclusive evidence that different EA frequencies have synergistic effects" to the discussion, and deleted the following: "to maximize the effect of EA".

3. DSMB

- It is critical to have a DSMB for the trial. However, it is not clear what the role of the DSMB members. According to the description, all the decision and action will be made by the Principal Investigator and there is nothing to do with the DSMB. The authors should clearly describe the role and qualification of the DSMB members.

Authors' response: We agree with your comments. The DSMB is vital, with the responsibility of monitoring how the trial is conducted and reviewing the accumulating trial data. We have independent researchers (two clinical trial experts and one biostatistician) for monitoring safety and efficacy-related issues. When 100 patients were recruited, the PI discussed potential problems such as adverse events and compliance with these members. SAEs will also be discussed with these members if they occur. We clearly describe this information in the "Data and safety monitoring" section.

4. Limitation

- Acupuncturist could not be blinded. Would there be any further discussion on that? Would any measures be taken to minimize the bias from the unblinded acupuncturists?

Authors' response: We agree with your point. To minimize the bias due to the unblinded acupuncturists, all of the treatment regimens and procedures will be written in detail as the previously specified protocols and SOPs, and each practitioner will be allowed to maintain interaction according to these. This information was added to the "Blinding" section in the Methods.

5. Others

- CONSORT check list not provided.

Authors' response: This article is a study protocol, CONSORT check lists are reporting guidelines for results following an RCT. If reporting guidelines are deemed necessary for this protocol, we can provide a SPIRIT checklist.

Reviewer: 2

Reviewer Name: Jordan A. Gliedt

Institution and Country: Logan University; USA

Please state any competing interests or state 'None declared': None Declared

Please leave your comments for the authors below

The authors have constructed a well designed study protocol.
Authors' response: We appreciate your response.