

Peer Review File

Article information: <https://dx.doi.org/10.21037/tau-23-301>

Reviewer A

It has a good message for the reader, but it would have been better if it had been written in a more scientific language.

Response: Thank you for your comment. This article has further standardized the language description.

Reviewer B

Propofol is a widely used intravenous anesthetic in clinical practice; however, it can easily cause severe circulation fluctuations in elderly patients, and thus its dosage should be reduced when appropriate. In the manuscript “Effect of wrist-ankle acupuncture on propofol dosage under the dual monitoring of DSA and Ai in elderly patients undergoing urologic surgery”, authors observe the influence of wrist-ankle acupuncture on the dosage of propofol in elderly patients, and provided new ideas for anesthesia in elderly patients.

Couple questions are required to be answered before it will be accepted.

- (1) What were the side effects of propofol? Please state in the introduction.
- (2) In the introduction, it was advised to add related reference (DOI: 10.21037/gc-22-438) about wrist-ankle acupuncture.
- (3) How to measure the anesthesia consciousness index? Please state in the methods.
- (4) What were the application ranges of WAA? Please state in the introduction.
- (5) Whether the WAA could be widely applied in clinical? Whether there were side effects in WAA? Please state in the discussion.
- (6) Whether the WAA was suitable for all cancer patients? Please state in the discussion.
- (7) How about the mechanism of WAA in analgesia? Please state in the discussion.
- (8) Please supplement the items to include when reporting a randomized trial in a journal or conference abstract.

Response: Thank you for your comments.

1. We added in the introduction “However, the disadvantage of propofol anesthesia is that it has a great influence on circulatory dynamics, especially on elderly patients with poor compensatory ability. Severe cases can lead to perioperative cardiovascular and cerebrovascular accidents and even death”.
2. In the introduction, we had added the related reference “3.Zhou QH, Gu W , Lin CQ.

Wrist-ankle acupuncture. Shanghai: Shanghai Science and Technology Press, 2017.4.Liu LC, Chen H, Xiong CY. Research progress of wrist-ankle acupuncture for postoperative analgesia. Shanghai Journal of Traditional Chinese Medicine 2016;50:94-6.

5.Zhuo SL. Acupuncture 'Examining Weiqi'. Chinese Acupuncture 2010;30:763-7.

6.Hou J, Li Y, Wu Y, et al. Safety and efficacy of wrist-ankle acupuncture in treating catheter-related bladder discomfort after transurethral resection of the prostate: a double-blind randomized clinical trial[J]. Gland Surgery, 2022, 11(9): 1464.”

3.we had stated in the monitoring of methods“ the measurement method: Before sticking the sensor, the skin surface was gently polished with matching sandpaper, and the skin was cleaned with alcohol cotton; The sensor was attached to the forehead near the hair mark, the No.1 electrode was attached to the center of the forehead, the No.2 and No.3 electrodes were attached to the left, and the No.4 electrode was attached to the temple (the attachment position and method are the same as BIS monitoring), and then the sensor electrode was attached to ConViewPearlCare”.

4. In the introduction, we added“WAA treatment is mainly used in clinical practice to alleviate patients' pain, discomfort, anxiety, and depression, and it is a fairly safe treatment method”

5.The application scope and common adverse reactions of wrist-ankle acupuncture have been supplemented in the discussion“Wrist-ankle acupuncture has been widely used in clinic as an auxiliary means to treat various patients' pain, anxiety, depression and other discomfort because of its few adverse reactions (mostly subcutaneous bleeding and needle fainting during operation)”.

6.Wrist-ankle acupuncture can be applied to cancer patients. Please refer to the application scope of wrist-ankle acupuncture in the discussion“Wrist-ankle acupuncture has been widely used in clinic as an auxiliary means to treat various patients' pain, anxiety, depression and other discomfort because of its few adverse reactions (mostly subcutaneous bleeding and needle fainting during operation)”.

7.The research direction is mainly the auxiliary sedation effect of wrist-ankle acupuncture in general anesthesia of elderly urological patients. The dosage of analgesic is fixed during operation, and the dosage of propofol is only adjusted according to DSA and Ai. Therefore, the analgesic function is not elaborated in the discussion. It has been reported that the analgesic mechanism of wrist-ankle acupuncture may be to regulate the function of autonomic nervous system and improve the pain area.

8.In this paper, the corresponding structure has been adjusted according to the random experiments in journals. See the method section for details.

Reviewer C

- 1) First, the title needs to indicate the clinical research design of this study, i.e., a sham-controlled RCT.
- 2) Second, the abstract needs further revisions. The background only indicate the knowledge gap but did not describe the clinical needs for this research focus. The methods need to describe the inclusion criteria, randomization method, and outcome measures of efficacy

and safety. The results need to describe the numbers of subjects who completed the intervention and outcome assessment, and please quantify the findings by using statistics such as outcome measurements and accurate P values. The conclusion should not repeat the findings and have comments for the clinical implications of the findings.

- 3) Third, in the introduction of the main text, the authors did not analyze why WAA is potentially able to reduce the dose of propofol and the underlying mechanism for the add-on anesthesia effects of WAA. It is also necessary to review the strengths and safety of WAA in comparison to other available methods for reducing the dose of propofol.
- 4) Fourth, the methodology of the main text was not written in a standardized way. Please describe the clinical research design, how the parameters for sample size estimation were obtained, qualification of acupuncturists, details of sham acupuncture, and importantly the assessment of the success of the blinding methods. Please describe the assessment of primary and secondary outcomes, including safety outcomes. In statistics, please consider the ITT analysis, the imputation of missing data, and ensure $P < 0.05$ is two-sided.

Response: Thank you for your comments.

1. The title of the article has been changed to “Impact of wrist-ankle acupuncture on propofol dosage under the dual monitoring of DSA and Ai in elderly patients undergoing urologic surgery : a sham-controlled RCT”

2. The abstract has been revised as required. Please refer to the original text for details.

3. The discussion part is about the possible mechanism of wrist-ankle acupuncture reducing propofol. The discussion part is about the possible mechanism of wrist-ankle acupuncture reducing propofol. Similarly, a different study also revealed that acupuncture anesthesia could reduce the dosage of anesthetic drugs, which may be explained by the possibility that acupuncture increased cerebral blood flow and changed the permeability of the blood-brain barrier, thereby facilitating the entry of propofol into the brain and promoting the rapid onset of anesthesia. By reducing the amount of propofol used, WAA can increase perioperative safety and reduce anesthesia-related complications in elderly patients. The discussion part is about the possible mechanism of wrist-ankle acupuncture reducing propofol”.

The advantages and security of WAA are described below in the discussion section. “Compared with other acupuncture techniques, WAA has the features of simple positioning; convenient needle retention; rapid therapeutic response; a lack of soreness, numbness, swelling, and pain after needling; and high safety and reliability. In addition, it does not require other additional instruments or equipment. Thus, it is more suitable for clinical anesthesia. Wrist-ankle acupuncture has been widely used in clinic as an auxiliary means to treat various patients' pain, anxiety, depression and other discomfort because of its few adverse reactions (mostly subcutaneous bleeding and needle fainting during operation)”.

Supplement in limitation“Thirdly, we did not study the influence of other acupuncture treatments on propofol dosage”.

4.The methodology of the main text has been redescribed.We added“In this study, there are 44 cases in ITT analysis set and PP analysis set”.

Reviewer D

1. Please indicate the full name of RCT in manuscript title.

■ **Impact of wrist-ankle acupuncture on propofol dosage under the dual monitoring of DSA and Ai in elderly patients undergoing urologic surgery: a sham-controlled RCT**

Response: The title of the article has been supplemented“Impact of wrist-ankle acupuncture on propofol dosage under the dual monitoring of DSA and Ai in elderly patients undergoing urologic surgery: a sham-controlled randomized clinical trial”

2. Ref.10 and Ref.25 are the same, please check and revise.

10.Zeng K, Zhou Q H. Clinical application and research progress of wrist and ankle acupuncture in the treatment of pain[J]. Zhenjiu Linchuang Zazhi 2012;9:69-72.

25.Zeng K, Zhou QH. Clinical application and research progress of wrist and ankle acupuncture in the treatment of pain. Zhenjiu Linchuang Zazhi 2012;9:69-72.

Response: Duplicate documents have been deleted.

3. Please check if there’s a reference missing in this sentence since you’ve mentioned “a previous study”.

515 were significantly lower than those in the NWAA group and were also significantly
516 lower than those reported in a previous study. Compared with the propofol maintenance

Response: The original line 353 has been revised.

4. Table 1: How were those data presented in the table? Please define them either inside the table or in table footnote.

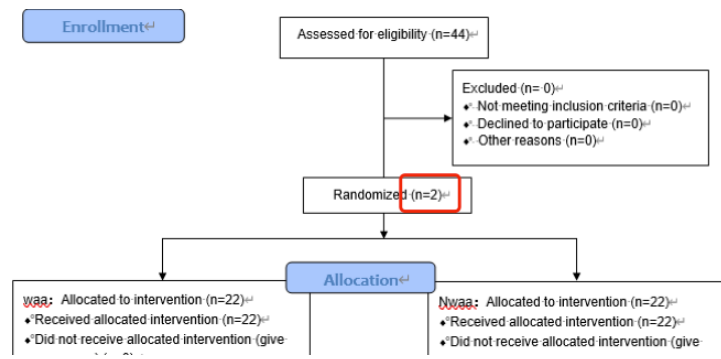
| | | | | |
|------------------------------|--------------|--------------|--------|-------|
| Age (years) | 71±5.61 | 73±6.13 | -0.565 | 0.575 |
| Duration of anesthesia (min) | 109.05±48.01 | 121.05±75.11 | -0.631 | 0.531 |

Response: Mean±SD has been added to the table

5. Table 2: Please define “*” in table footnote.

Response: Line 531 has been added in the footnote of the table

6. Please check below number in Figure 1, should it be 44?



Response: We will provide the word version of the flow chart together