

Commentary on Transcutaneous Acupoint Interferential Current Stimulation for Cancer Pain Patients With Opioid-Induced Constipation

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We have read with interest the article from Zhu et al,¹ recently published in *Integrative Cancer Therapies*, about the efficacy and safety of transcutaneous acupoint interferential current stimulation for cancer pain patients with opioid-induced constipation. The authors conclude that transcutaneous acupoint interferential current (IFC) therapy over acupoints of Tianshu (ST25) and Zhongwan (RN12) may improve constipation and quality of life in cancer patients receiving opiates although further studies are worthwhile. We would like to highlight some inaccuracies and errors detected in the present article.

First, we disagree about the anticipated calculation of the sample size shown in this article. To reach a 90% of statistical power to find a statistically significant difference between 2 groups, when the effectiveness was 80% and 75%, a larger sample than approximately 100 subjects per group is needed. There must be an error in the calculation of the sample size or authors have anticipated the sample size with calculations based on other variable than the effectiveness of the treatments. Based on the data provided, a power of 90% would deserve 2 arms of more than a thousand participants each (with an allocation rate of 1:1 and 2-tailed). We think that based on the provided sample size, the study is probably underpowered.²

Second, data shown in Table 2 of Zhu et al's article indicate that the IFC group was composed of 58 subjects and the control group was composed of 60 participants. These data do not correspond to those presented in Table 1 (IFC group n = 98 and control group n = 100); indeed, the percentages reflected in Table 2 of Zhu et al's article correspond to the total reflected at the beginning of the results section, so the figures reflected in Table 2 are not correct.

Again, in Table 3 group composition seems to be erroneously described with IFC group (n = 58) and control group (n = 60). No further analysis can be done from the data in Table 3 as authors have not indicated when the independent-sample Student's *t* test or the Wilcoxon signed-rank test was applied.

The authors indicate that after within-group comparisons, the results revealed that both Cleveland Constipation Scales and Patient Assessment of Constipation Quality of Life changed significantly from week 1, whereas pain Numeric Rating Scale showed significant change from week 2; however, no statistical test that allows within group comparisons was provided (paired/dependent comparisons was used in this study).

There are other concerns about the data shown in the article that might reflect some mistakes and clearly an inaccurate peer review process. In Figure 2, images from panels A and B are the same, and they seem to belong to the Cleveland Constipation Scales although axis shows "GCS," which is not explained in the footnote. No data for the Patient Assessment of Constipation Quality of Life is shown although indicated in the footnote, and finally in panel C, axis shows "RNS" that is not explained in the footnote (supposed to be NRS, pain Numeric Rating Scale). Anyway, this figure represents the same data shown in Table 3. Submission guidelines frequently recommend to restrict tables and figures to those necessary to explain the argument of the article and assess its support and to duplicate data in more than one form is not common. We understand that those are mistakes that could be corrected in an Erratum.

Additionally, there are discrepancies between the previously reported sample size of this clinical trial (Registry Number: ChiCTR-IPR-15007105)³ where authors defined (n = 120) and then finally used (n = 198). It is good practice that if the actual sample size differed from the originally intended sample size (eg, because of poor recruitment or revision of the target sample size), an explanation should be given.⁴

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