Journal of Pain Research Dovepress

Open Access Full Text Article LETTER

The Impact of Fu's Subcutaneous Needling on Lower Limb Muscle Stiffness in Knee Osteoarthritis Patients: Study Protocol for a Pilot Randomized Controlled Trial [Letter]

Dayong Zhong[1,2]

[1]Department of Rehabilitation, Third Veterans Hospital of Sichuan Province, Chengdu, 611330, People's Republic of China; [2]Department of Massage, Hospital of Chengdu University of Traditional Chinese Medicine, Chengdu, 610075, People's Republic of China

Correspondence: Dayong Zhong, Email 450565496@qq.com

Journal of Pain Research downloaded from https://www.dovepress.com/
For personal use only.

Dear editor

We are writing to express our appreciation for the recent study "The impact of Fu's subcutaneous needling on lower limb muscle stiffness in knee osteoarthritis patients: study protocol for a pilot randomized controlled trial".[1]

This research introduces a novel approach by utilizing shear wave elastography (SWE) to examine the effects of Fu's subcutaneous needling (FSN) on lower limb muscle stiffness in patients with knee osteoarthritis (KOA).

In recent years, the emerging technology of SWE offers real-time, non-invasive imaging with rapid acquisition and strong reproducibility, enabling quantitative assessment of tissue elasticity. This technique has gradually been applied in studying acupuncture treatments for musculoskeletal disorders. A recent observational study[2] indicated that FSN could reduce lower limb muscle stiffness in KOA patients; however, the authors concluded that further verification is required through randomized controlled trials. The standardized SWE operational protocol proposed in this study could effectively reduce measurement errors and provide a valuable reference for future research. This method will offer new insights into how FSN alleviates joint pain and functional impairments. Furthermore, the authors reference previous studies multiple times, such as the impact of FSN on quadriceps stiffness and the confounding effects of subcutaneous fat layers. Therefore, we suggest that the authors clearly articulate how this current research improves upon or expands the findings of earlier studies.

Additionally, we noticed that the authors employed more frequent evaluations using the Numeric Rating Scale (NRS) and WOMAC compared to previous acupuncture studies[3] on KOA. This raises a critical question: is it necessary to conduct evaluations at such a high frequency? While frequent assessments may provide detailed monitoring of therapeutic effects, it would benefit the authors to justify this approach, especially if previous studies utilized less frequent evaluations. Clarifying the rationale behind this decision would enhance understanding the study design and its implications.

Finally, the authors' preliminary research utilized transcutaneous electrical nerve stimulation as a control,[4] whereas this study protocol has opted for electroacupuncture. It would be beneficial for the authors to further elucidate the rationale for this change in control intervention and discuss any potential implications for the study's outcomes. The current study must be differentiated from the authors' previous preliminary research.

I look forward to the results of this important research and its potential implications for treating knee osteoarthritis. Thank you for considering these points to enhance the clarity and impact of this significant work.

Disclosure

The authors declare no conflicts of interest in this communication.

Received: 14 October 2024
Accepted: 19 October 2024
Published: 22 October 2024

© 2024 Zhong. This work is published and licensed by Dove Medical Press Limited. The full terms of this license are available at https://www.dovepress.com/terms.php and incorporate the Creative Commons Attribution – Non Commercial (unported, v3.0) License (http://creativecommons.org/licenses/by-nc/3.0/). By accessing the work you hereby accept the Terms. Non-commercial uses of the work are permitted without any further permission from Dove Medical Press Limited, provided the work is properly attributed. For permission for commercial use of this work, please see paragraphs 4.2 and 5 of our Terms (https://www.dovepress.com/terms.php).

References

1. Li H, Yang CC, Bai T, et al. The impact of Fu's subcutaneous needling on lower limb muscle stiffness in knee osteoarthritis patients: study protocol for a pilot randomized controlled trial. *J Pain Res*. 2024;17:3315–3326. doi:10.2147/JPR.S482082
2. Yang X, Wang H, Sun J. Understanding tightened muscle in knee osteoarthritis and the impacts of Fu's subcutaneous needling: a pilot trial with shear-wave elastography and near-infrared spectroscopy. *Medicine*. 2024;103(21):e38274. doi:10.1097/MD.0000000000038274
3. Tu JF, Yang JW, Shi GX, et al. Efficacy of intensive acupuncture versus Sham acupuncture in knee osteoarthritis: a randomized controlled trial. *Arthritis Rheumatol*. 2021;73(3):448–458. doi:10.1002/art.41584
4. Chiu P-E, Fu Z, Sun J, Jian G-W, Li T-M, Chou L-W. Efficacy of Fu's subcutaneous needling in treating soft tissue pain of knee osteoarthritis: a randomized clinical trial. *J Clin Med*. 2022;11(23):7184–7204. doi:10.3390/jcm11237184

Dove Medical Press encourages responsible, free and frank academic debate. The contentTxt of the Journal of Pain Research 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Journal of Pain Research editors. While all reasonable steps have been taken to confirm the contentTxt of each letter, Dove Medical Press accepts no liability in respect of the contentTxt of any letter, nor is it responsible for the contentTxt and accuracy of any letter to the editor.

Journal of Pain Research Dovepress

Publish your work in this journal

The Journal of Pain Research is an international, peer reviewed, open access, online journal that welcomes laboratory and clinical findings in the fields of pain research and the prevention and management of pain. Original research, reviews, symposium reports, hypothesis formation and commentaries are all considered for publication. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

Submit your manuscript here: https://www.dovepress.com/journal-of-pain-research-journal

https://doi.org/10.2147/JPR.S500929