

In Reply: Study Protocol of Early-Intervention Acupuncture Analgesia Among Patients With Suspected Acute Renal Colic in Emergency Department [Response to Letter]

Xiao Wang¹, Ying Cao², Cun-Zhi Liu¹, Jian-Feng Tu¹, Zhi-Cheng Qu²

¹School of Acupuncture-Moxibustion and Tuina, Beijing University of Chinese Medicine, Beijing, People's Republic of China; ²Emergency Department, Beijing Hospital of Traditional Chinese Medicine, Capital Medical University, Beijing, People's Republic of China

Correspondence: Jian-Feng Tu, School of Acupuncture-Moxibustion and Tuina, Beijing University of Chinese Medicine, No. 11, Bei San Huan Dong Lu, Chaoyang District, Beijing, 100029, People's Republic of China, Email tujianfeng1@126.com; Zhi-Cheng Qu, Emergency Department, Beijing Hospital of Traditional Chinese Medicine, Capital Medical University, 23 Meishuguanhou Street, Dongcheng District, Beijing, 100010, People's Republic of China, Email qzch0824@163.com

Dear editor,

We thank Dr Ma and colleagues for their interest in our protocol.¹ Firstly, the vast majority of patients with suspected acute renal colic due to urinary calculi (ARCUC) seek care in emergency department (ED) or urology department due to sudden and severe pain episodes.² Therefore, participants were recruited from these two departments in our trial. As a single-center randomized controlled trial, the generalisability of the findings may be limited, as discussed in the Limitation section. However, compared with multicenter trials, the quality was more easily controlled, and internal authenticity was better guaranteed in this study.

Second, this trial was designed to evaluate the acute pain-relieving effects of early-intervention acupuncture in the ED setting. The primary outcome, defined as the response rate at 10 minutes post-needle manipulation, reflects this focus and is unaffected by extended follow-up periods. Secondary outcomes aimed at evaluating not the immediate effect but the potential longer-term benefits of acupuncture during 3-day follow-up. The prolonged follow-up periods might introduce potential biases, yet confounding factors like surgical intervention, adverse events, and patients' medication were well recorded throughout the trial to minimize the impact.

Lastly, regarding the selection of acupoints, EX-UE7 (Yaotongdian) was chosen due to its effective analgesia for loin pain or abdominal pain, as supported by prior research.³ A meta-analysis showed EX-UE7, along with other acupoints, such as SP6, SP9, GB25, ST36, BL40, PC6, BL23, and KI3, are effective in treating ARCUC.⁴ Acupuncture on EX-UE7 may activate the locus coeruleus/superior colliculus (LC/SC) neural circuit to modulate norepinephrine (NE) release in the dorsal horn of the spinal cord and inhibit the discharge of dorsal horn wide-dynamic-range (WDR) neurons via α_2 -AR receptors, thereby inhibiting pain upload.^{5,6} Moreover, patients manifesting as restlessness and frequent positional changes because of the intolerable pain. The location of EX-UE7 allows for easy accessibility, compared with other acupoints, regardless of whether patients are seated or moving fully clothed, making it particularly suitable for the fast-paced and relatively chaotic ED situations.

We sincerely thank the recognition of our study and the valuable suggestions. Acute renal colic is a critical condition that significantly impacts patients' quality of life, and its pain management in ED is of utmost importance. We look forward to collaborating with more research teams to advance academic progress.

Disclosure

The authors report no conflicts of interest for this communication.

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