



# Gaps between basic science and patient care in acupuncture study

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Untreated hypertension increases the risk of heart disease and stroke that are one of commonest causes of death worldwide. In a recent article of *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology* (1), Professor Guo and his colleagues of University of California at Irvine produced a new approach using rat model to reveal the mechanistic evidence of acupuncture therapy on hypertension; their study reported that transient receptor potential vanilloid type 1 in the median afferent nerve contributes to inhibition of reflex increases in blood pressure during manual acupuncture, but not electro- or sham-acupuncture. While the finding is promising and provides an essential foundation of clinical study regarding therapeutic effects of acupuncture for hypertensive patients, a foreseeable challenging is that the hypertension is a chronic disorder and likely requires repeated treatments in which the invasive acupuncture could potentially injure the median nerve (2), also a possibility which the patients' nervous system adapt to the acupuncture over time as the known benefit may alter with repeated needle insertions. Thus, the future study of acupuncture protocols for hypertension may need to include noninvasive approach such as ultrasound and laser acupuncture with adjustable intensity and depth of penetration (3,4), optimistically the future finding could further bridge the gaps between pre-clinical and clinical study and eventually lead to a practical evidence-based guidelines for the management of hypertension.

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## References

1. Guo ZL, Fu LW, Su HF, et al. Role of TRPV1 in acupuncture modulation of reflex excitatory cardiovascular responses. *Am J Physiol Regul Integr Comp Physiol*

- 2018;314:R655-66.
2. Peuker E, Grönemeyer D. Rare but serious complications of acupuncture: traumatic lesions. *Acupunct Med* 2001;19:103-8.
  3. Tsuruoka N, Watanabe M, Takayama S, et al. Brief effect of acupoint stimulation using focused ultrasound. *J Altern Complement Med* 2013;19:416-9.
  4. Litscher G. Laser Acupuncture and Heart Rate Variability-Scientific Considerations. *Medicines (Basel)* 2018;5(2). pii: E43.

doi: 10.21037/lcm.2018.08.01

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