

## The Effect of Electroacupuncture at Zusanli (ST36) Acupoint on Expression of Voltage-Gated Sodium Channels in CFA-Induced Inflammatory Pain Model

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### Background & Aim :

The objective of this study is to investigate the anti-nociception mechanism of electroacupuncture at Zusanli (ST36) acupoint on expression of voltage-gated sodium channels in CFA-induced inflammatory pain model.

### Materials & Methods :

We injected complete Freund's adjuvant (CFA) into the mice plantar surface of the hind paw to induce inflammation and examined the anti-nociception effect of EA at the Zusanli (ST36) acupoint at 2 Hz low-frequency. Animals mechanical hyperalgesia were evaluated using electronic von Frey filaments and thermal hyperalgesia were assessed using Hargraves' test. Furthermore, we observed the nociceptor voltage-gated sodium channels (Nav 1.7) expression and quality in DRG neurons.

### Results :

Our results show that electroacupuncture reduced mechanical and thermal pain in CFA-induced inflammatory animal model. Noticeably, the expression of Nav1.7 was increased after 4 days of CFA-elicited inflammatory pain and further attenuated by 2 Hz EA stimulation.

### Conclusion :

We showed that EA at Zusanli (ST36) acupoint at 2Hz low frequency stimulation reduced animal pain behavior and accompanied by decreasing the expression of Nav1.7 in peripheral DRG neurons.

### Keywords:

hyperalgesia, electroacupuncture, anti-nociception, inflammatory pain, voltage-gated sodium channels

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