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對側高頻經皮神經電刺激和苯海拉明可阻礙大鼠開胸手術後接觸性痛覺過敏之進程

**Contralateral High Frequency Transcutaneous Electrical Nerve Stimulation and Diphenhydramine Prevent the Progression of Allodynia after Thoracotomy in Rats**

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**Background and Purpose:** Postthoracotomy pain is a serious problem persecuted for many patients after chest surgery. Transcutaneous electrical nerve stimulation (TENS) and local anesthetics are acceptable methods for the management of postthoracotomy pain clinically. The purpose of this study was to investigate the effect of contralateral TENS and the local anesthetic diphenhydramine on postthoracotomy pain. **Methods:** Male Sprague-Dawley rats following thoracotomy were evaluated mechanical allodynia on postoperative day 10, and then treated the rats by application of high-frequency TENS to contralateral side of the incision site and systemic diphenhydramine in next 7 days. **Results:** We found both contralateral high-frequency TENS and diphenhydramine reduced mechanical allodynia ( $p < 0.05$ ) in comparison with those rats underwent thoracotomy without any treatment. **Conclusions:** Our resulting data showed that daily contralateral high-frequency TENS suppressed the development of postthoracotomy pain. **Clinical Relevance:** Both contralateral high-frequency TENS and diphenhydramine are good options to manage postthoracotomy pain.