

## **Abstract**

We are still unable to effectively suppress neuropathic pain, therefore it remains a serious problem. Ghrelin, the orexigenic hormone released by enteroendocrine stomach cells, could contribute to alleviation of the neuropathic pain by its antinociceptive effect. Previous studies have shown that ghrelin prevents development of nociceptive symptoms of neuropathic pain. The aim of our study was to determine whether chronic administration of ghrelin will affect the already fully developed neuropathic pain and differentiate its antinociceptive and analgesic effect. We used a model of chronic constriction injury of the sciatic nerve. We have proven that ghrelin suppressed the already developed thermal and mechanical hyperalgesia, so ghrelin not only prevents the development, but also suppresses the already developed nociceptive symptoms. However analgesia test showed that ghrelin did not affect the temperature preference, neither did induce the place preference. We suppose that ghrelin does not cause analgesia in neuropathic pain and its antinociceptive effect could be caused by anti-inflammatory or neuroprotective action.

### **Key words:**

Ghrelin, neuropathic pain, chronic constriction injury, preference methods