Lemnalol, a natural marine compound obtained form the formosan soft coral *Lemnalia cevicorni* attenuates nociceptive responeses and activity of the spinal glial cells in neuropathic rats.

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Natural compounds obtained from marine organisms have attracted considerable attention as rich sources of novel potential drugs, which may be used for the treatment of human inflammatory diseases. In our previous study, we had found that administration of lemnalol, a natural marine compound isolated from the Formosan soft coral Lemnalia cervicorni, produces anti-inflammatory and analgesic effects in carrageenan-injected rats—an *in vivo* inflammatory model. It is well-known that neuroinflammation can induce neuropathic pain. Neuropathic pain syndromes are accompanied with hyperalgesia and allodynia, and are resistant to treatment with opioid and other analgesics. Recently, many studies have demonstrated that the activated glial cells of the spinal cord play an important role in the development/maintenance of neuropathic pain through the release of proinflammatory mediators. In the present study, we investigated the anti-nociceptive properties of lemnalol, a potential anti-inflammatory compound, on chronic constriction injury (CCI) in a well-established animal model of neuropathic pain. Our results revealed that intrathecal administration of lemnalol significantly attenuated CCI-induced thermal hyperalgesia and allodynia. Further, immunohistochemical analyses revealed that lemnalol also significantly inhibits the CCI-induced upregulation of glial cells and inflammatory mediators in the dorsal horn of the lumbar spinal cord. Collectively, our results indicate that lemnalol is a potential therapeutic agent for neuropathic pain. Our findings suggest that further exploration of the effects of lemnalol on glial proinflammatory responses is warranted.