

Effects of *Nelumbo nucifera* Gaertn on Neuropathic Pain in Rats

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Abstract

Neuropathic pain is a disturbance resulted from injury to a nerve or particular group of nerves. Neuropathic pain is often reported as having a lancinating or continuous burning character and is often associated with the appearance of abnormal sensory signs, such as allodynia or hyperalgesia. The purpose of the present study was to investigate pain relieving effects of *Nelumbo nucifera* Gaertn (KHA24) on a rat model of neuropathic pain. Adult male Sprague-Dawley rats were used. Neuropathic pain model was prepared according to the method described by Lee et al. Animals were divided into three groups according to each three dose of *Nelumbo nucifera* Gaertn and control. The *Nelumbo nucifera* Gaertn were injected intraperitoneally. A behavioral test for mechanical allodynia were performed using von Frey filament (8mN) for two weeks postoperatively. To quantify cold sensitivity, acetone was applied to the plantar surface of the foot 5 times on each hind paw. After the injection of *Nelumbo nucifera* Gaertn, mechanical allodynia and cold allodynia were reduced. These results indicate that *Nelumbo nucifera* Gaertn may provide a potent strategy in relieving neuropathic pain.

Keyword : *Neuropathic pain, Nelumbo nucifera Gaertn, Mechanical allodynia, Cold*