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Poster Presentation

The Evaluation of Aqueous Extract of Glycyrrhiza Glabra on Nerve Recovery in the Rat after Sciatic Nerve Injury

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Abstract

Peripheral nerve injury requires a long recovery period, and recovery, once attained, usually is incomplete. Inflammatory procedures may inhibit functional recovery after nerve injury and produce cell death in both the central nervous sys tem and the peripheral nervous system. Since the glycyrrhiza glabra extract has anti-inflammatory effects, it could reduce the severity of injury. The aim of this study was to evaluation of aqueous extract of G. glabra on nerve recovery in the rat after sciatic nerve injury. 24 male wistar rats were randomly divided into four groups: control and G. glabra extract with 50, 100 and 150 mg/kg doses groups. Sciatic nerve was exposed to compression for 60 second using locker pincers. At days 7, 14, 21, and 28 nerve regeneration and functional recovery were evaluated using the sciatic functional index (SFI). Result of present study shows that at day 7 and 14 there were no significant differences between all groups in their SFI. At day 21 SFI was significantly improved in 100 mg group. Also, SFI differences between control group and 50 and 100 mg groups were statistically significant at 28-day post-injury. This study revealed that Aqueous extract of G. glabra is able to promote sciatic nerve regeneration and improve the function of a crushed sciatic nerve and the extract with 150 mg/kg dose had the largest impact. However, to confirm the present results and determine the exact mechanism more studies will be necessary.

Keywords: Sciatic Nerve, Glycyrrhiza Glabra, Repair, Rat

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