



Alleviation of spinal cord injury by Ginkgolide B via the inhibition of STAT1 expression

J.L. Zheng, B.S. Li, X.C. Cao, W.K. Zhuo and G. Zhang

Department of Orthopedics Surgery, Jinan Military General Hospital, Jinan, Shandong, China

Corresponding author: J.L. Zheng
E-mail: zhjinlongl@126.com

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ABSTRACT. Ginkgolide B has been known to inhibit cell apoptosis by modulating multiple cytokines and plays an important role in neuroprotection. Signal transducer and activator of transcription 1 (STAT1) has been studied in a spinal cord injury (SCI) model. However, the role of Ginkgolide B in SCI treatment remains unclear. This study investigated the potential mechanism of Ginkgolide B using an SCI rat model. SD rats were used to generate an SCI model followed by Ginkgolide B injection (4 mg/kg) for 14 days. Spinal cord tissue samples were examined using hematoxylin and eosin (H&E) staining. The expression of STAT1 was determined by western blot. Using a dyskinesia scale, intervention with Ginkgolide B significantly decreased the severity of SCI. H&E staining revealed less nuclear condensation and cell necrosis in SCI rats after treatment with Ginkgolide B. STAT1 expression was significantly increased in SCI model rats, but was lower after Ginkgolide B treatment. Therefore, Ginkgolide B can effectively inhibit STAT1 expression and alleviate SCI.

Key words: Ginkgolide B; Signal transducer and activator of transcription 1; Spinal cord injury