Anti-fatigue activity of a triterpenoid-rich extract from Chinese bamboo shavings (*Caulis bamfusae in taeniam*)


Abstract

The anti-fatigue activity of a pentacyclic triterpenoid extract from bamboo shavings (EBS) from the bark of bamboo (*Bambusa tuldoides* Munro), was evaluated in BALB/c mice. EBS, isolated by the supercritical CO₂ fluid extraction (SFE) technique, was given to mice at concentrations of 0.04 (low-dose group), 0.08 (middle-dose group) and 0.25 g/kg body weight (high-dose group). The anti-fatigue activity of EBS was estimated by the change in body weight, weight-loaded swimming test and climbing test, and corresponding parameters including serum urea nitrogen, hepatic glycogen and blood lactic acid were measured. The results showed that an appropriate level of EBS could prolong the weight-loaded swimming and climbing time, and had an active effect on the serum urea nitrogen, hepatic glycogen and blood lactic acid level in BALB/c mice, which significantly embodied the anti-fatigue activity of EBS. Overall, it is predicted that EBS, being a composition mainly containing a group of pentacyclic triterpenoids, and its main triterpenoid components have great potential for application in relevant fields for its anti-fatigue activity. Copyright © 2006 John Wiley & Sons, Ltd.