

Hepatoprotective effects of *Arctium Lappa* on carbon-tetrachloride- and acetaminophen-induced liver damage

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摘要

Abstract

The root of *Arctium lappa* Linne (*A. lappa*) (Compositae), a perennial herb, has been cultivated for a long time as a popular vegetable. In order to investigate the hepatoprotective effects of *A. lappa*, male ICR mice were injected with carbon tetrachloride (CCl₄, 32 microl/kg, i.p.) or acetaminophen (600 mg/kg, i.p.). *A. lappa* suppressed the SGOT and SGPT elevations induced by CCl₄ or acetaminophen in a dose-dependent manner and alleviated the severity of liver damage based on histopathological observations. In an attempt to elucidate the possible mechanism(s) of this hepatoprotective effect, glutathione (GSH), cytochrome P-450 (P-450) and malondialdehyde (MDA) contents were studied. *A. lappa* reversed the decrease in GSH and P-450 induced by CCl₄ and acetaminophen. It was also found that *A. lappa* decreased the malondialdehyde (MDA) content in CCl₄ or acetaminophen-intoxicated mice. From these results, it was suggested that *A. lappa* could protect the liver cells from CCl₄ or acetaminophen-induced liver damages, perhaps by its antioxidative effect on hepatocytes, hence eliminating the deleterious effects of toxic metabolites from CCl₄ or acetaminophen.