

Antioxidant and Hepatoprotective activity of punicalagin and punicalin on carbon tetrachloride-induced liver damage in rats.

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Abstract

Punicalagin and punicalin, isolated from the leaves of *Terminalia catappa* L., are used to treat dermatitis and hepatitis. Both compounds have strong antioxidative activity. The antihepatotoxic activity of punicalagin and punicalin on carbon tetrachloride (CCl₄)-induced toxicity in the rat liver was evaluated. Levels of serum glutamate-oxalate-transaminase and glutamate-pyruvate-trans-aminase were increased by administration of CCl₄ and reduced by drug treatment. Histological changes around the liver central vein and oxidation damage induced by CCl₄ also benefited from drug treatment. The results show that both punicalagin and punicalin have anti-hepatotoxic activity but that the larger dose of punicalin induced liver damage. Thus even if tannins have strong antioxidant activity at very small doses, treatment with a larger dose will induce cell damage.