Antifibrotic effects of a polysaccharide extracted from Ganoderma lucidum, glycyrrhizin, and pentoxifylline in rats with cirrhosis induced by biliary obstruction.

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Source

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Erratum in


Abstract

For the past few years, we have been investigating polysaccharides from Ganoderma lucidum as antifibrotic agents. In a previous study, we discovered that polysaccharides extracted from G. lucidum lowered the collagen content in liver but had no effect on serum biochemical parameters in rats subjected to bile duct ligation and scission-induced fibrosis. In this study, we changed the extraction method and obtained polysaccharides extracted from G. lucidum. The polysaccharide from G. lucidum reduced the serum aspartate transaminase (AST), alanine transaminase (ALT), alkaline phosphatase (ALP) and total bilirubin and also reduced the collagen content in liver and improved the morphology. Pentoxifylline, which is reported to exhibit an antifibrotic effect in pigs with fibrosis induced by yellow phosphorus, did not have any antifibrotic effects in fibrosis induced by biliary obstruction. Glycyrrhizin, which is used in the treatment of hepatitis, reduced serum ALT and AST values but there was no significance. It had no effect on liver hydroxyproline content which implies that glycyrrhizin has no antifibrotic effect in the rats with fibrosis induced by bile duct ligation and scission. These data suggest that the polysaccharide from Ganoderma lucidum could be a promising antifibrotic...
agent. However, further study is needed to understand the inhibition mechanism of collagen deposition of polysaccharides from Ganoderma lucidum and its clinical applicability remains to be established.

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