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Basic Study

A new strain of *Pediococcus pentosaceus* alleviates ethanol-induced liver injury by modulating the gut microbiota and short-chain fatty acid metabolism

Jiang XW *et al.* *Pediococcus pentosaceus* alleviates ethanol-induced liver injury

Abstract

BACKGROUND

Intestinal dysbiosis has been shown to be associated with the pathogenesis of alcoholic liver disease (ALD), which includes changes in the microbiota composition and bacterial overgrowth, but an effective microbe-based therapy is lacking. *P. pentosaceus* CGMCC 7049 is a newly isolated strain of probiotic that has shown to be resistant to ethanol and bile salts. However, further studies are needed to determine whether *P. pentosaceus* exerts a protective effect on ALD and elucidate the potential mechanism.

AIM

To evaluate the protective effect of the probiotic *Pediococcus pentosaceus* on ethanol-induced liver injury in mice.

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The gut microbiota is considered a key factor in pathogenesis and progression of inflammatory bowel disease (IBD). The bacterium ***Pediococcus pentosaceus*** LI05 alleviated host inflammation by maintaining **the gut** epithelial integrity, **modulating** the host immunity, **gut microbiota** and **metabolism**, but its effect on IBD remains unclear. The present study aimed to investigate the ...

Author: Xiaoyuan Bian, Liya Yang, Wenrui W... **Publish Year:** 2020

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Gut microbiota plays a role in the pathophysiology of metabolic diseases, which include nonalcoholic **fatty liver** diseases, through **the gut–liver** axis. To date, clinical guidelines recommend a weight loss goal of 7%–10% to improve features of nonalcoholic **fatty liver** diseases.

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Pediococcus pentosaceus LI05 alleviates DSS-induced colitis by **modulating** immunological profiles, the **gut microbiota** and **short-chain fatty acid** levels in a mouse model

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