Anabolic-androgenic steroids for alcoholic liver disease

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Authors' objectives
Background: Alcohol is one of the most common causes of liver disease in the Western World. Randomised clinical trials have examined the effects of anabolic-androgenic steroids for alcoholic liver disease. Objectives: To assess the beneficial and harmful effects of anabolic-androgenic steroids for patients with alcoholic liver disease based on the results of randomised clinical trials.

Search methods: We searched The Cochrane Hepato-Biliary Group Controlled Trials Register, The Cochrane Controlled Trials Register in The Cochrane Library, MEDLINE, EMBASE, LILACS, and Science Citation Index Expanded until June 2006. Electronic searches were combined with full text searches. Manufacturers and researchers in the field were also contacted.

Selection criteria: Randomised clinical trials studying patients with alcoholic steatosis, alcoholic fibrosis, alcoholic hepatitis, and/or alcoholic cirrhosis were included. Interventions encompassed anabolic-androgenic steroids at any dose or duration versus placebo or no intervention. The trials could be double blind, single blind, or unblinded. The trials could be unpublished or published, and no language limitations were applied.

Data collection and analysis: Outcomes are assessed at maximal follow-up. All analyses were performed according to the intention-to-treat method. The statistical package RevMan Analyses was used. The methodological quality of the randomised clinical trials was assessed.

Main results: Combining the results of five randomised clinical trials randomising 499 patients with alcoholic hepatitis and/or cirrhosis demonstrated no significant effects of anabolic-androgenic steroids on mortality (relative risk (RR) 1.01, 95% confidence interval (CI) 0.79 to 1.29), liver-related mortality (RR 0.83, 95% CI 0.60 to 1.15), complications of liver disease (RR 1.25, 95% CI 0.74 to 2.10), and liver histology. Anabolic-androgenic steroids did not significantly affect a number of other outcome measures, including sexual function and liver biochemistry. Anabolic-androgenic steroids were not associated with a significantly increased risk of non-serious adverse events (RR 1.14, 95% CI 0.50 to 2.59) or with serious adverse events (RR 4.54, 95% CI 0.57 to 36.30).

Authors' conclusions: This systematic review could not demonstrate any significant beneficial effects of anabolic-androgenic steroids on any clinically important outcomes (mortality, liver-related mortality, liver complications, and histology) of patients with alcoholic liver disease.


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