



Meta-analysis of ursodeoxycholic acid in the treatment of nonalcoholic steatohepatitis



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Introduction

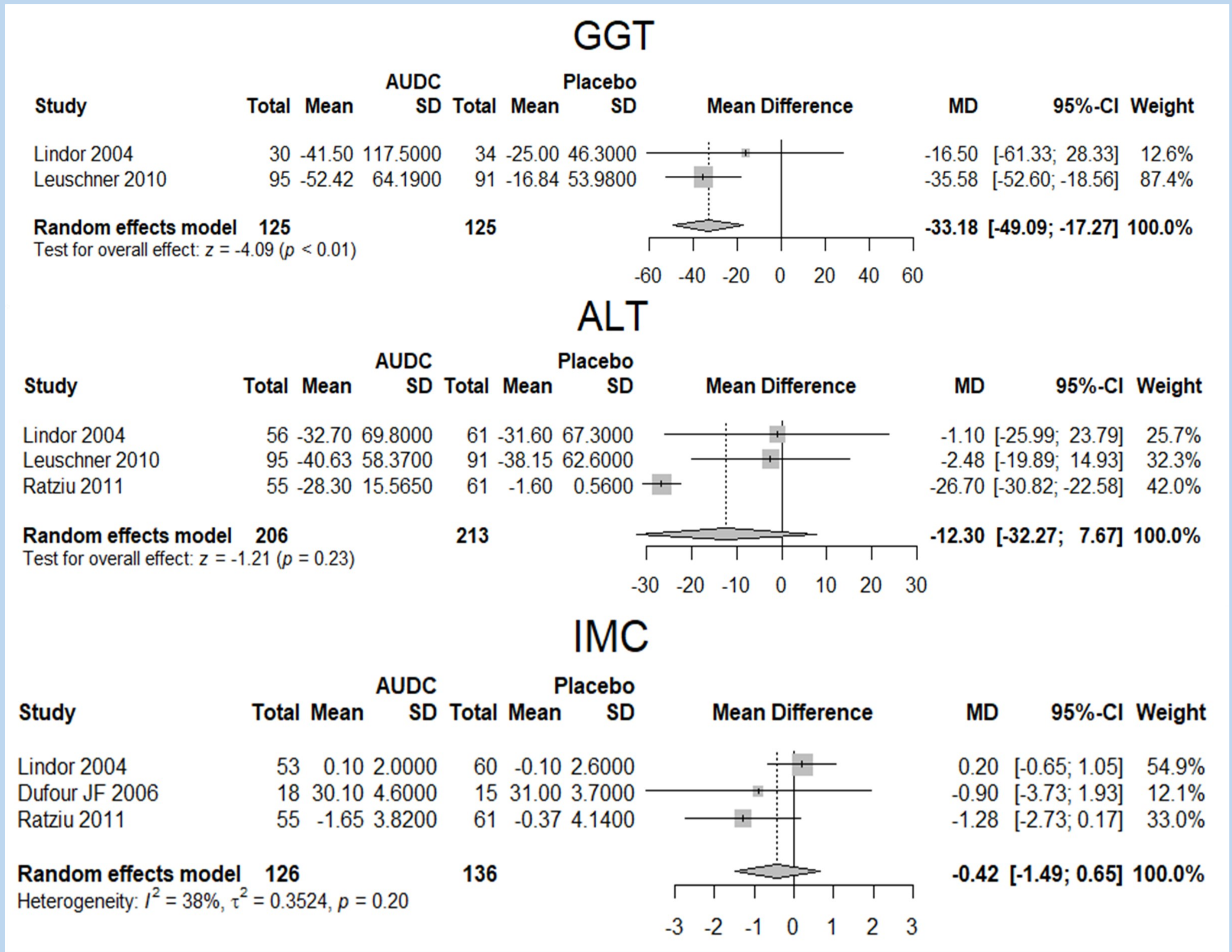
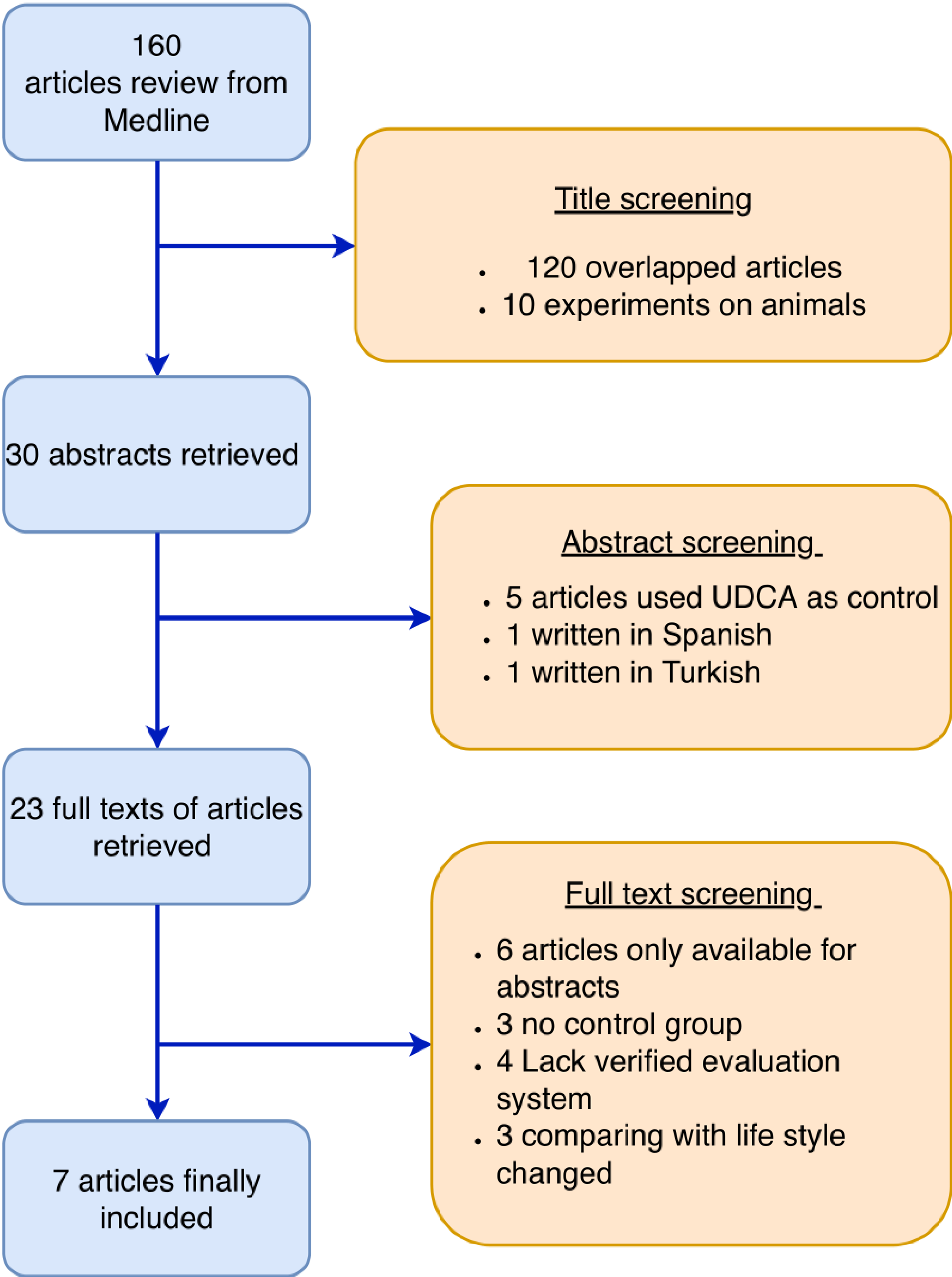
Ursodeoxycholic acid (UDCA) has been tested several times in the treatment of NASH. However, it is not recommended by international guidelines but remains largely prescribed in France for this indication (Ratziu et Al., J Hepatol., 2012). We reported the results of the first meta-analysis on this topic. Searches were conducted on the databases of Medline by two independent investigators to identify articles describing UDCA and its derivatives for nonalcoholic steatohepatitis. 160 articles were selected, 23 were analyzed, 16 were excluded and 7 selected for the final analysis. This following available variables were analyzed: Weight, BMI, Fibrosis Level, ALT, AST, GGT, PAL, Blood Glucose, Ferritinemia, Triglyceridemia and PT.

Results

Few studies have measured the same parameters to analyze a fraction of the available studies. The results for ferritinemia, triglyceride and PT were excluded because they were found in unique study. The result was found to significantly improve in GGT activity in the AUDC group compared with placebo (n = 2 studies, diff = -33 IU, 95% CI = [-49 IU, -17 IU], p <0.001) and declining trend non-significantly in transaminases, (n studies = 3, diff = -12 IU, 95% CI: [-32 IU, 8 IU], p = 0.22).

Methods

For each variable of interest, we pooled the accessible results in mean difference between the UDCA groups and the placebo groups. Either in difference of difference of the measurements between the beginnings and the end of experiment between the two groups; even if they were available, or in difference intergroup at end of experiment. The procedure of this study estimated by Der Simonian and Laird's random-effect model at the significance level alpha = 0.05.



Conclusion

This meta-analysis shows a significant decrease in GGT activity and a non-significant decrease in transaminase activity that should be confirmed by others large cohort studies. UDCA was no efficacy on the histological lesions of NASH and fibrosis.