A3907, a Novel Inhibitor of Bile Acid Transport in the Intestine and Kidney, Improves Markers of Metabolic and Hepatic Pathology, and Reduces Nonalcoholic Fatty Liver Disease Activity Score and Fibrosis Stage in a Diet-Induced and Biopsy-Confirmed Mouse Model of Nonalcoholic Steatohepatitis

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RESULTS (CONT'D)

- **Biochemical and Hepatic Parameters:**
  - After treatment, A3907 (10-50 mg/kg) significantly improved biochemical and hepatic parameters compared to treatment with placebo or A007 (10 mg/kg).
  - A3907 also reduced liver inflammation and fibrosis stage.

- **Gene Expression Changes:**
  - A3907 treatment significantly reduced the expression of genes associated with inflammation and fibrosis.
  - The expression of genes associated with bile acid transport and metabolism was also reduced.

- **Histological Findings:**
  - A3907 treatment led to a significant reduction in liver inflammation and fibrosis.
  - The degree of steatosis and necroinflammation was also reduced.

CONCLUSIONS

- A3907 treatment demonstrated significant improvements in markers of metabolic and hepatic pathology, and reduced nonalcoholic fatty liver disease activity score and fibrosis stage.

REFERENCES


AUTHOR DISCLOSURES

- A3907 is a proprietary compound of Abreo Pharma, Inc. The authors declare no conflicts of interest.

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Figure 2. Mean (SD) Effects on Biochemical and Hepatic Parameters After 4 Weeks of A3907 Treatment

- ALT, AST, Cholesterol, Triglycerides, and hepatic enzymes were significantly reduced with A3907 treatment compared to placebo and A007.

Figure 3. Select Gene Expression Changes With 4 Weeks of A3907 Treatment

- A3907 treatment significantly reduced the expression of genes associated with inflammation and fibrosis.

Figure 4. Histological Findings After 10 Weeks of Treatment With A3907

- A3907 treatment led to a significant reduction in liver inflammation and fibrosis.

Figure 5. NAFLD Activity Score and Fibrosis Stage After 10 Weeks of Treatment With A3907

- A3907 treatment significantly reduced the NAFLD Activity Score and fibrosis stage compared to placebo and A007.