

CRO services for Cholestatic Liver Disease

Cholestatic liver diseases (CLD) arise from impaired hepatobiliary production and excretion of bile, which cause bile constituents to enter the circulation. CLD can be caused by Primary Biliary Cirrhosis (PBC), Primary Sclerosing Cholangitis (PSC), Drug-Induced Liver Injury, etc. The effects of cholestasis are profound and widespread, leading to worsening liver disease and systemic illness.

Bile duct ligation (BDL)-induced cholestatic liver disease model is characterized by acute liver injury, followed by inflammation and wound healing process of livers, and widely used to investigate the efficacy of various therapeutic agents on protection of hepatocytes, liver inflammation, fibrosis and so on.

SMC, a Tokyo-based biotech company also known as the leading nonclinical CRO for nonalcoholic steatohepatitis (NASH), provides pharmacology study service of BDL-induced CLD model in mice. Our expertise in inflammation/fibrosis is now experienced in CLD R&D.

BDL-induced cholestatic liver disease model

Animal:

- Male C57BL/6J (7- to 8-week-old)

Induction of cholestasis:

- Common bile duct ligation

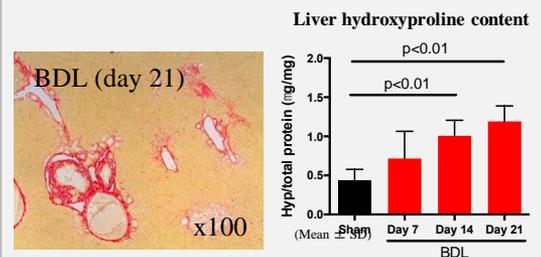
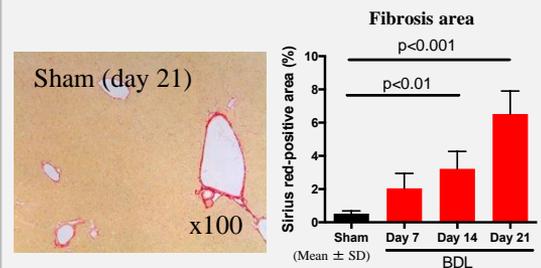
Major endpoint:

- Histology on liver tissue (Sirius red-positive area)

Additional endpoints:

- Mortality rate
- Blood biochemistry (ALT, AST, ALP, T-Bil,...)
- Hydroxyproline content of livers
- Semi-quantitative RT-PCR for molecular markers
- Immunohistochemical analyses for molecular markers
- Cytokines and chemokines in blood and livers by ELISA

Evaluation of fibrosis



The extent of liver fibrosis is estimated by SR-stained sections and liver hydroxyproline content.

•Portal fibrosis occurs in BDL model.

•Liver hydroxyproline content and Sirius red-positive area are significantly increased on days 14 and 21



For more information, please contact us below.

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