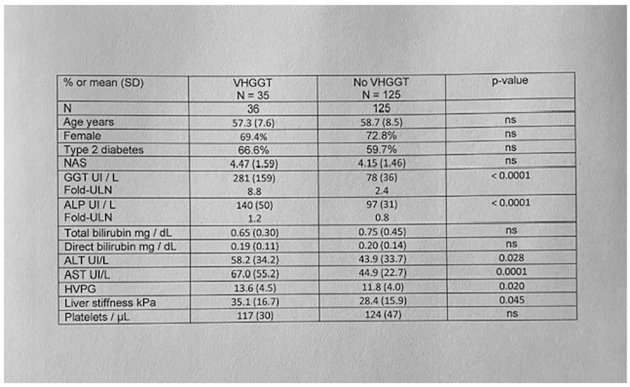
The Liver Meeting

Boston, Massachusetts

Nov 10-14, 2023



% or mean (SD)	VHGGT N = 35	No VHGGT N = 125	p-value
N	36	125	
Age years	57.3 (7.6)	58.7 (8.5)	ns
Female	69.4%	72.8%	ns
Type 2 diabetes	66.6%	59.7%	ns
NAS	4.47 (1.59)	4.15 (1.46)	ns
GGT UI / L Fold-ULN	281 (159) 8.8	78 (36) 2.4	< 0.0001
ALP UI / L Fold-ULN	140 (50) 1.2	97 (31) 0.8	< 0.0001
Total bilirubin mg / dL	0.65 (0.30)	0.75 (0.45)	ns
Direct bilirubin mg / dL	0.19 (0.11)	0.20 (0.14)	ns
ALT UI/L	58.2 (34.2)	43.9 (33.7)	0.028
AST UI/L	67.0 (55.2)	44.9 (22.7)	0.0001
HVPG	13.6 (4.5)	11.8 (4.0)	0.020
Liver stiffness kPa	35.1 (16.7)	28.4 (15.9)	0.045
Platelets / µL	117 (30)	124 (47)	ns

Disclosures: Eric Lawitz – 89Bio Inc., AbbVie, Akero Therapeutics, Allergan, Alnylam Pharmaceuticals Inc., Amgen, Ascelia Pharma, AstraZeneca, Axcella Health, Boehringer Ingelheim, Bristol-Myers Squibb, Conatus Pharmaceuticals, Cymabay Therapeutics, CytoDyn, DSM, Durect Corporation: Grant/Research Support (research funding from ineligible companies should be disclosed by the principal or named investigator even if that individual's institution receives the research grant and manages the funds), No, No; Akero, Boehringer Ingelheim, BMS, Intercept, Novo Nordisk, Metacrine, Sagimet, Terns: Advisor, No, No; Abbvie, Gilead Sciences, Intercept: Speaking and Teaching, No, No;
The following people have nothing to disclose: Pol Boudes, Naga P. Chalasani

2270-C | A RAT MODEL FOR METABOLIC DYSFUNCTION-ASSOCIATED FATTY LIVER DISEASE

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Background: Metabolic dysfunction-associated fatty liver disease (MAFLD) is a major health problem worldwide. It is characterized by intense deposition of fat globules in the hepatic parenchyma and is accompanied with fibrosis that could potentially progress to liver cirrhosis and hepatocellular carcinoma (HCC). We developed a rat model to evaluate the molecular mechanisms associated with the pathogenesis of MAFLD and to screen appropriate modalities to prevent MAFLD. **Methods:** SHRSP5/Dmcr rats (spontaneously hypertensive rats / stroke prone) were fed a high-fat and cholesterol (HFC) diet for a period of 12 weeks and evaluated for the development of steatosis, steatohepatitis, fibrosis, and cirrhosis. The same set of control animals received normal diet. A group of animals were sacrificed at the end of the 4th, 6th, 8th, and 12th weeks from the beginning of the experiment. Blood and liver samples were collected for biochemical and histopathological evaluations. Immunohistochemical staining was performed for α-SMA, TNF-α, 4-hydroxy-2-nonenal (4-HNE), collagen type I, and type III. **Results:** Histopathology and trichrome staining demonstrated steatosis at 4th week, steatohepatitis with progressive fibrosis at 6th week, advanced fibrosis with bridging at 8th week, and cirrhosis *at* 12th week of HFC diet administration. Biochemical markers and immunohistochemical staining for α-SMA, TNF-α, 4-HNE, and collagens type I and type III demonstrated the progression of MAFLD from simple steatosis to liver cirrhosis. The animals that received normal diet did not show any biochemical or pathological alterations. **Conclusion:** The results of the current study demonstrated that HFC diet administration to SHRSP5/Dmcr rats is a good and reproducible animal model for MAFLD and is suitable to study the molecular mechanisms associated with the pathogenesis of MAFLD and to screen appropriate therapeutic modalities. *Email: georgej@kanazawa-med.ac.jp*
Disclosures: The following people have nothing to disclose: Mutsumi Tsuchishima, Mikihiro Tsutsumi, Joseph George

2271-C | ABHD5 OVEREXPRESSION PROTECTS PNPLA3-148M PRIMARY HUMAN HEPATOCYTES FROM STEATOSIS IN LIVER CHIMERIC MICE WITH NAFLD

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Background: The methionine variant at position 148 of patatin-like phospholipase domain-containing protein 3 (PNPLA3-148M) is associated with advanced fatty liver disease. Previous studies have proposed a mechanism by which PNPLA3-148M sequesters alpha/beta-hydrolase domain containing 5 (ABHD5),

Symbols: ♦, Poster of Distinction; ★, Foundation Award Recipient