

Impact of HBV infection on clinical outcomes in patients with metabolic dysfunction-associated fatty liver disease

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Table of contents

Table S1.....	2
Table S2.....	3
Table S3.....	4
Table S4.....	5

Table S1: Clinical characteristics and outcomes between the “HBV alone” group and the “healthy controls” in participants without MAFLD. Level of significance: $p < 0.05$ (chi-square and student’s t tests)

	Healthy controls N= 11116	HBV alone N= 1415	P-value
Age, year	55.21 ±10.62	54.19 ±9.78	0.0003
Male, n (%)	2969 (26.71)	481 (33.99)	<.0001
Diabetes, n (%)	537 (4.83)	59 (4.17)	0.2710
Hypertension, n (%)	1440 (12.95)	159 (11.24)	0.0682
Dyslipidemia, n (%)	1069 (9.62)	97 (6.86)	0.0008
BMI, kg/m ²	22.83 ±3.05	22.98 ±3.05	0.0743
Glucose, mg/dL	93.80 ±16.07	93.22 ±16.85	0.2176
HbA1c, %	5.73 ±0.64	5.68 ±0.61	0.0019
TG, mg/dL	94.90 ±54.41	90.92 ±49.90	0.0052
CHO, mg/dL	197.71 ±36.30	193.33 ±34.83	<.0001
HDL, mg/dL	59.16 ±13.73	58.22 ±13.97	0.0157
LDL, mg/dL	119.99 ±31.47	116.72 ±29.95	0.0001
Uric acid, mg/dL	5.01 ±1.25	5.05 ±1.26	0.2930
AST, U/L	23.67 ±9.07	28.05 ±17.29	<.0001
ALT, U/L	18.72 ±15.30	26.73 ±31.27	<.0001
GGT, U/L	19.06 ±20.66	18.42 ±25.93	0.3688
Fatty liver index	15.57 ±16.04	15.35 ±15.78	0.6329
FIB-4	1.46 ±0.73	1.60 ±0.88	<.0001
NFS	-1.88 ±1.20	-1.84 ±1.17	0.2835
Creatinine, mg/dL	0.71 ±0.33	0.74 ±0.61	0.0643
eGFR, ml/min/1.732	107.27 ±25.08	107.10 ±24.84	0.8096
IMT, mm	0.59 ±0.14	0.58 ±0.13	0.0209
Carotid plaque, n (%)	3088 (27.78)	364 (25.72)	0.1031

Abbreviation: DM, diabetes mellitus; HTN, hypertension; BMI, body mass index; HbA1c, glycated hemoglobin; TG, triglycerides; CHO, cholesterol; HDL, high-density lipoprotein; LDL, low-density lipoprotein; AST, aspartate aminotransferase; ALT, alanine aminotransferase; GGT, γ -glutamyl transferase; FIB-4, fibrosis-4; NFS, NAFLD fibrosis score; eGFR, estimated glomerular filtration rate; IMT, intima media thickness.

Table S2: Factors associated with biomarkers of advanced liver fibrosis in the participants without MAFLD (n=12531). Level of significance: $p < 0.05$ (binary logistic regression)

FIB-4 > 2.67	AOR	(95% CI)	<i>P value</i>
Age, year	1.175	(1.158- 1.192)	<.0001
Male	1.143	(0.949- 1.377)	0.1593
HBV	2.215	(1.744- 2.813)	<.0001
GGT, U/L	1.008	(1.005- 1.011)	<.0001
FLI	0.986	(0.979- 0.992)	<.0001

Abbreviation: MAFLD, metabolic associated fatty liver disease; FIB-4, fibrosis-4; AOR, adjusted odds ratio; CI, confidence interval; GGT, γ -glutamyl transferase; FLI, fatty liver index; NFS, NAFLD fibrosis score.

Table S3: Factors associated with carotid plaques in the participants without MAFLD (n=12531). Level of significance: $p < 0.05$ (binary logistic regression)

	AOR	95% CI	P value
Age, year	1.109	(1.103-1.116)	<.0001
Male	1.711	(1.555-1.882)	<.0001
HBV	1.003	(0.871-1.155)	0.9674
DM	1.521	(1.262-1.835)	<.0001
HTN	1.783	(1.579-2.015)	<.0001
Dyslipidemia	1.151	(1.001-1.323)	0.0480

Abbreviation: MAFLD, metabolic associated fatty liver disease; AOR, adjusted odds ratio; CI, confidence interval; HBV, hepatitis B virus; DM, diabetes mellitus; HTN, hypertension

Table S4: Comparison of clinical characteristics and outcomes between those with MAFLD and those without in the chronic HBV-infected patients using propensity score matching. Level of significance: $p < 0.05$ (chi-square and student's t tests)

	HBV alone N= 684	Dual etiology N= 684	P-value
Age, year	53.88 ±9.65	53.87 ±9.69	0.9933
Male, n (%)	319 (46.64)	319 (46.64)	>0.999
Diabetes, n (%)	33 (4.82)	75 (10.96)	<.0001
Hypertension, n (%)	78 (11.40)	138 (20.18)	<.0001
Dyslipidemia, n (%)	48 (7.02)	81 (11.84)	0.0023
Alcohol, n (%)	27 (3.95)	30 (4.39)	0.6848
BMI, kg/m ²	22.95 ±2.88	26.75 ±3.66	<.0001
Glucose, mg/dL	93.92 ±17.50	102.75 ±27.11	<.0001
HbA1c, %	5.68 ±0.57	6.13 ±1.09	<.0001
TG, mg/dL	94.53 ±53.19	143.94 ±102.90	<.0001
CHO, mg/dL	193.52 ±34.27	195.78 ±38.92	0.2549
HDL, mg/dL	57.01 ±13.69	48.57 ±11.21	<.0001
LDL, mg/dL	118.10 ±29.78	123.58 ±33.63	0.0015
Uric acid, mg/dL	5.20 ±1.30	5.90 ±1.33	<.0001
AST, U/L	28.01 ±14.86	29.04 ±13.89	0.1897
ALT, U/L	27.30 ±28.86	34.43 ±26.99	<.0001
GGT, U/L	18.88 ±23.67	25.23 ±17.44	<.0001
Fatty liver index	15.89 ±15.81	40.88 ±23.90	<.0001
FIB-4	1.57 ±0.76	1.35 ±0.68	<.0001
NFS	-1.86 ±1.11	-1.73 ±1.21	0.0408
Creatinine, mg/dL	0.77 ±0.74	0.77 ±0.53	0.9879
eGFR, ml/min/1.732	105.46 ±21.88	104.64 ±23.72	0.5050
IMT, mm	0.58 ±0.14	0.62 ±0.13	<.0001
Carotid plaque, n (%)	176 (25.73)	184 (26.90)	0.6233

Abbreviation: DM, diabetes mellitus; HTN, hypertension; BMI, body mass index; HbA1c, glycated hemoglobin; TG, triglycerides; CHO, cholesterol; HDL, high-density lipoprotein; LDL, low-density lipoprotein; AST, aspartate aminotransferase; ALT, alanine aminotransferase; GGT, γ -glutamyl transferase; FIB-4, fibrosis-4; NFS, NAFLD fibrosis score; eGFR, estimated

glomerular filtration rate; IMT, intima media thickness.