

Serum hepatitis B core antibody as a biomarker of hepatic inflammation in chronic hepatitis B patients with normal alanine aminotransferase

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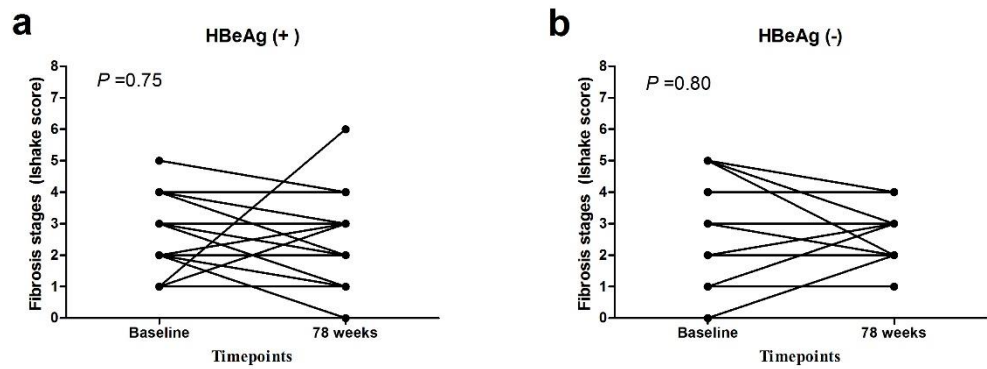
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1 **Supplementary Figure S1** Dynamic changes of liver fibrosis score in HBeAg (+)(a)
2 and HBeAg (-)(b) CHB patients receiving antiviral treatment after a second liver biopsy.



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1 **Supplementary Table S2** Univariate and multivariate analysis of clinical parameters,
2 anti-HBc with liver inflammation in HBeAg (+) patients (n=404)

Parameters	Univariate analysis		P Value (Univariate)	Multivariate analysis	
	HAI <5 (n=155)	HAI ≥5 (n=249)		Odds Ratio (95% CI)	P Value (Multivariate)
Sex distribution, males	80% (124/155)	79.5% (198/249)	1		
age,years	36.03±10.18	26.51±10.45	0.53		
BMI(kg/m ²)	25.04±23.09	23.23±3.66	0.78		
HBsAg (log ₁₀ IU/ml)	4.08±0.92	4.61±0.58	< 0.001	0.83 (0.55-1.26)	0.38
HBV DNA (log ₁₀ IU/ml)	7.22±1.70	6.76±1.60	< 0.001	0.88 (0.72-1.07)	0.2
Anti-HBc (log ₁₀ IU/ml)	3.81±1.02	4.79±0.64	< 0.001	4.52 (2.54-8.06)	< 0.001
ALT (U/L)	56.08±59.66	137.6±163.4	< 0.001	1.00(0.99-1.02)	0.52
AST (U/L)	35.96±25.98	83.74±93.57	< 0.001	1.01 (0.99-1.03)	0.16
ALP (U/L)	73.33±23.58	86.36±28.96	< 0.001	1.00 (0.98-1.01)	0.48
GGT (U/L)	35.16±31.41	67.65±68.21	< 0.001	1.00 (1.00-1.01)	0.74
Tbil	14.79±18.01	17.68±13.57	< 0.001	1.00 (0.98-1.02)	0.97
Albumin	44.61±3.86	43.18±5.73	< 0.001	1.00 (0.93-1.07)	0.94
PT s	12.48±1.12	13.01±1.65	< 0.001	0.92 (0.66-1.29)	0.63
PTA %	101.4±18.44	94.29±16.03	0.001	1.00 (0.98-1.03)	0.93
INR	1.01±0.09	1.07±0.14	< 0.001	1.00 (0.98-1.02)	0.61
Platelet counts (x10 ⁹ /L)	190.7±58.72	171.3±53.15	< 0.001	1.00 (0.99-1.00)	0.43

HAI, histology activity index; Fibrosis Score; MBI, body mass index; HBsAg, hepatitis B surface antigen; HBeAg, hepatitis B e antigen; anti-HBc, hepatitis B core antibody; ALT, alanine aminotransferase; AST, aspartate aminotransferase; ALP, alkaline phosphatase; GGT, gamma-glutamyl transpeptidase; Tbil, total bilirubin; PT, prothrombin time; PTA, prothrombin time activity; INR, international normalized ratio.

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1 **Supplementary Table S3** Univariate and multivariate analysis of clinical parameters,
2 anti-HBc with liver inflammation in HBeAg (-) patients (n=251)

Parameters	Univariate analysis		P Value (Univariate)	Multivariate analysis	
	HAI <5 (n=110)	HAI ≥5 (n=141)		Odds Ratio (95% CI)	P Value (Multivariate)
Sex distribution, males	72.7% (80/110)	78.7% (111/141)	0.3		
age,years	41.42±9.78	41.87±9.56	0.71		
BMI(kg/m ²)	23.37±2.81	23.83±2.85	0.19		
HBsAg (log ₁₀ IU/ml)	0.78±0.07	4.67±0.58	< 0.001	1.32 (0.75-2.35)	0.34
HBV DNA (log ₁₀ IU/ml)	4.50±1.44	5.08±1.74	0.002	1.12 (0.85-1.46)	0.43
Anti-HBc (log ₁₀ IU/ml)	3.81±1.02	4.79±0.64	< 0.001	2.97 (1.38-6.39)	0.005
ALT (U/L)	45.29±30.64	108.7±132.5	< 0.001	1.00 (0.99-1.02)	0.97
AST (U/L)	35.45±22.63	73.63±88.26	< 0.001	1.02 (0.98-1.05)	0.33
ALP (U/L)	76.94±23.68	87.68±31.40	0.007	1.00 (0.99-1.02)	0.68
GGT (U/L)	31.57±27.46	70.55±65.73	< 0.001	1.03 (1.01-1.06)	0.01
Tbil	15.82±7.89	20.62±35.85	< 0.001	1.00 (0.98-1.02)	0.84
Albumin	45.79±5.44	44.21±6.46	0.004	0.96 (0.90-1.02)	0.2
PT s	12.40±1.32	12.68±1.60	0.25	0.83 (0.57-1.23)	0.36
PTA %	98.58±18.37	94.79±15.07	0.09	1.00 (0.98-1.03)	0.78
INR	1.01±0.09	1.04±0.12	0.09	1.00 (0.99-1.02)	0.14
Platelet counts (x10 ⁹ /L)	162.4±53.26	155.4±56.77	0.18	1.01 (1.00-1.01)	0.2

HAI, histology activity index; Fibrosis Score; MBI, body mass index; HBsAg, hepatitis B surface antigen; HBeAg, hepatitis B e antigen; anti-HBc, hepatitis B core antibody; ALT, alanine aminotransferase; AST, aspartate aminotransferase; ALP, alkaline phosphatase; GGT, gamma-glutamyl transpeptidase; Tbil, total bilirubin; PT, prothrombin time; PTA, prothrombin time activity; INR, international normalized ratio.

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1 **Supplementary Table S4** Univariate and multivariate analysis of clinical parameters,
2 anti-HBc with liver fibrosis in HBeAg (+) Patients (n=404)

Parameters	Univariate analysis		P Value (Univariate)	Multivariate analysis	
	F <3 (n=256)	F ≥3 (n=148)		Odds Ratio (95% CI)	P Value (Multivariate)
Sex distribution, males	80.9% (207/256)	77.7% (115/148)	0.44		
age,years	34.49±9.55	39.47±10.90	< 0.001	1.03 (1.00-1.06)	0.04
BMI(kg/m ²)	23.08±4.24	23.54±2.88	0.03	1.00 (0.98-1.02)	0.8
HBsAg (log ₁₀ IU/ml)	4.07±0.79	3.42±0.68	< 0.001	0.58 (0.37-0.91)	0.02
HBV DNA (log ₁₀ IU/ml)	7.22±1.63	6.46±1.60	< 0.001	0.84 (0.70-1.02)	0.09
Anti-HBc (log ₁₀ IU/ml)	4.20±0.98	4.48±0.75	0.005	1.30 (0.83-2.04)	0.25
ALT (U/L)	105.1±122.5	108.6±164.5	0.76		
AST (U/L)	61.02±63.72	72.93±99.16	0.003	1.00 (0.99-1.00)	0.04
ALP (U/L)	77.39±24.96	80.06±30.92	0.001	1.00 (0.99-1.01)	0.8
GGT (U/L)	45.95±53.74	71.70±64.54	< 0.001	1.00 (1.00-1.01)	0.12
Tbil	15.97±18.02	17.61±9.52	< 0.001	1.00 (0.98-1.02)	0.94
Albumin	44.68±4.77	42.06±5.35	< 0.001	0.92 (0.86-0.99)	0.02
PT s	12.48±1.17	13.37±1.80	< 0.001	1.22 (0.86-1.75)	0.27
PTA %	101.0±16.31	90.49±17.01	< 0.001	1.00 (0.97-1.03)	0.81
INR	1.01±0.09	1.09±0.16	< 0.001	1.00 (0.99-1.01)	0.44
Platelet counts (x10 ⁹ /L)	193.3±52.64	153.6±52.98	< 0.001	0.99 (0.98-1.00)	<0.001

F, Fibrosis Score; MBI, body mass index; HBsAg, hepatitis B surface antigen; HBeAg, hepatitis B e antigen; anti-HBc, hepatitis B core antibody; ALT, alanine aminotransferase; AST, aspartate aminotransferase; ALP, alkaline phosphatase; GGT, gamma-glutamyl transpeptidase; Tbil, total bilirubin; PT, prothrombin time; PTA, prothrombin time activity; INR, international normalized ratio.

1 **Supplementary Table S5.** Univariate and multivariate analysis of clinical parameters,
2 anti-HBc with liver fibrosis in HBeAg (-) Patients (n=251)

Parameters	Univariate analysis		P Value (Univariate)	Multivariate analysis	
	F <3 (n=149)	F ≥3 (n=102)		Odds Ratio (95% CI)	P Value (Multivariate)
Sex distribution, males	72.5% (108/149)	81.4% (83/102)	0.13		
age,years	40.81±9.63	42.90±9.58	0.11		
BMI(kg/m ²)	23.41±2.81	23.93±2.86	0.17		
HBsAg (log ₁₀ IU/ml)	3.19±0.71	3.10±0.75	0.3		
HBV DNA (log ₁₀ IU/ml)	4.82±1.60	4.83±1.7	0.86		
Anti-HBc (log ₁₀ IU/ml)	4.39±0.57	4.59±0.64	0.002	1.44 (0.78-2.65)	0.25
ALT (U/L)	67.83±78.35	98.82±133.8	0.008	1.00 (0.99-1.01)	0.49
AST (U/L)	45.17±47.60	73.19±91.01	< 0.001	1.01 (0.99-1.02)	0.43
ALP (U/L)	76.08±20.89	92.43±34.83	< 0.001	1.01 (1.00-1.03)	0.08
GGT (U/L)	38.72±38.87	73.33±68.16	< 0.001	1.01 (1.00-1.02)	0.03
Tbil	15.41±7.54	22.90±41.35	0.03	1.01 (0.98-1.04)	0.6
Albumin	45.58±4.92	43.96±7.33	< 0.001	0.98 (0.92-1.04)	0.47
PT s	12.36±1.39	12.83±1.58	0.01	1.03 (0.71-1.49)	0.88
PTA %	98.51±16.93	93.51±15.92	0.003	1.01 (0.98-1.04)	0.64
INR	1.01±0.10	1.05±0.11	0.002	1.00 (0.98-1.02)	0.62
Platelet counts (x10 ⁹ /L)	172.6±54.60	138.6±49.99	< 0.001	0.99 (0.98-0.99)	<0.001

F, Fibrosis Score; MBI, body mass index; HBsAg, hepatitis B surface antigen; HBeAg, hepatitis B e antigen; anti-HBc, hepatitis B core antibody; ALT, alanine aminotransferase; AST, aspartate aminotransferase; ALP, alkaline phosphatase; GGT, gamma-glutamyl transpeptidase; Tbil, total bilirubin; PT, prothrombin time; PTA, prothrombin time activity; INR, international normalized ratio.

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