

Supplementary Material

Association of plasma antimony concentration with markers of liver function in Chinese adults

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Table S1. Association of plasma antimony concentration with serum liver enzyme ratios among the study participants (N=4733).^A

Abbreviation: ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; TBil, total bilirubin; DBil, direct bilirubin; IBil, indirect bilirubin; CI, confidence interval; BMI, body mass index; eGFR, estimated glomerular filtration rate; ULN, upper limit of normal.

Liver enzyme ratios	β (95% CI)		
	Model 1 ^B	Model 2 ^C	Model 3 ^D
Ratio 1 ^E	0.00 (-0.02, 0.02)	0.00 (-0.02, 0.02)	0.01 (-0.01, 0.03)
Ratio 2 ^F	0.03 (0.00, 0.07)	0.03 (0.00, 0.07)	0.03 (-0.01, 0.06)

^A Plasma antimony concentration was naturally log transformed.

^B Model 1 was adjusted for age, gender, and eGFR.

^C Model 2 was further adjusted for BMI, smoking, drinking status, and education level.

^D Model 3 was further adjusted for hypertension, hyperlipidemia, and future disease status.

^E Ratio 1 was defined as AST value/ALT levels.

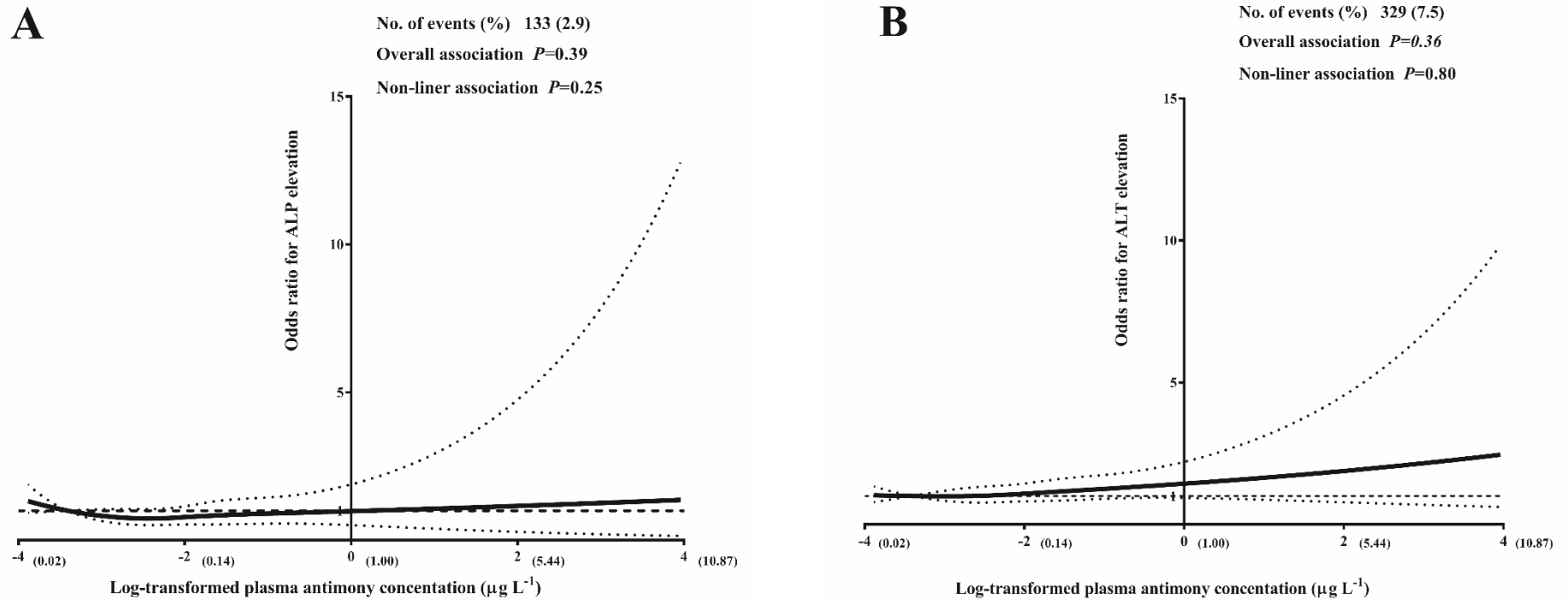
^F Ratio 2 was defined as the ratio of (ALT value/ ALT ULN) and (ALP value/ ALP ULN).

Figure S1. The restricted cubic spline for the association between plasma antimony concentration and incident elevation of liver function markers (N=4733).

The lines represented adjusted odds ratios based on restricted cubic splines for the natural log-transformed concentration of plasma antimony in the fully adjusted logistic regression model.

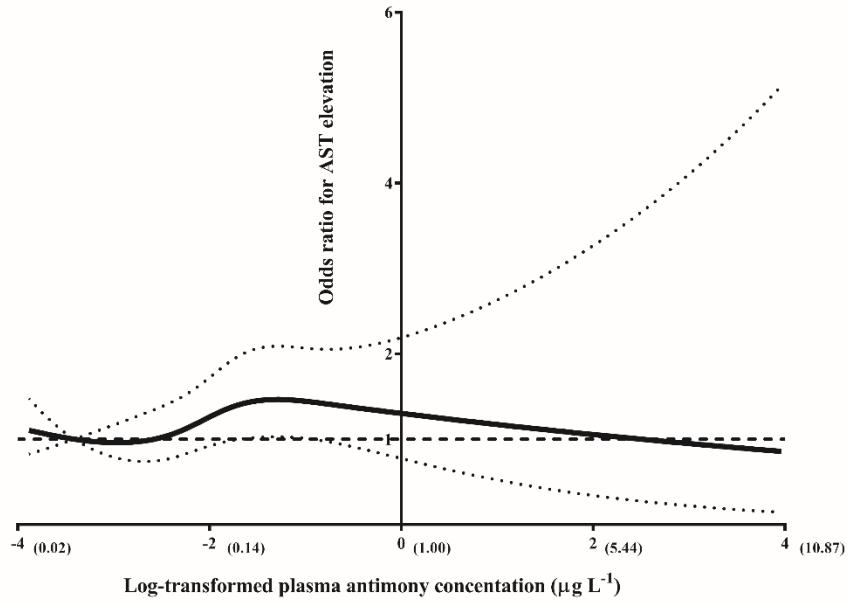
Knots were placed at the 5th, 35th, 65th, and 95th percentiles, with the reference value (OR=1) set at the 10th percentile.

The model was adjusted for age, gender, eGFR, BMI, smoking status, drinking status, education level, hypertension, hyperlipidemia, and future disease status.



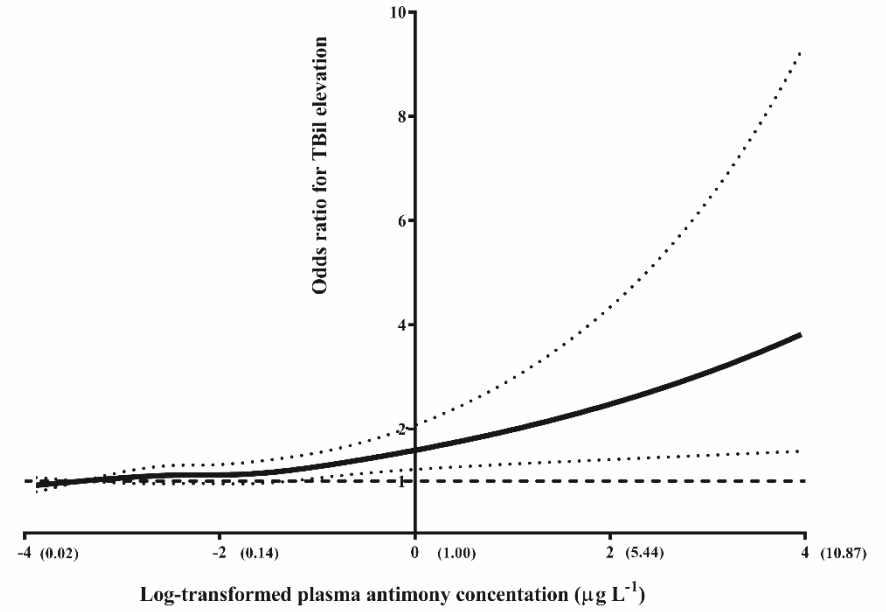
C

No. of events (%) 280 (6.3)
Overall association $P=0.13$
Non-linear association $P=0.27$



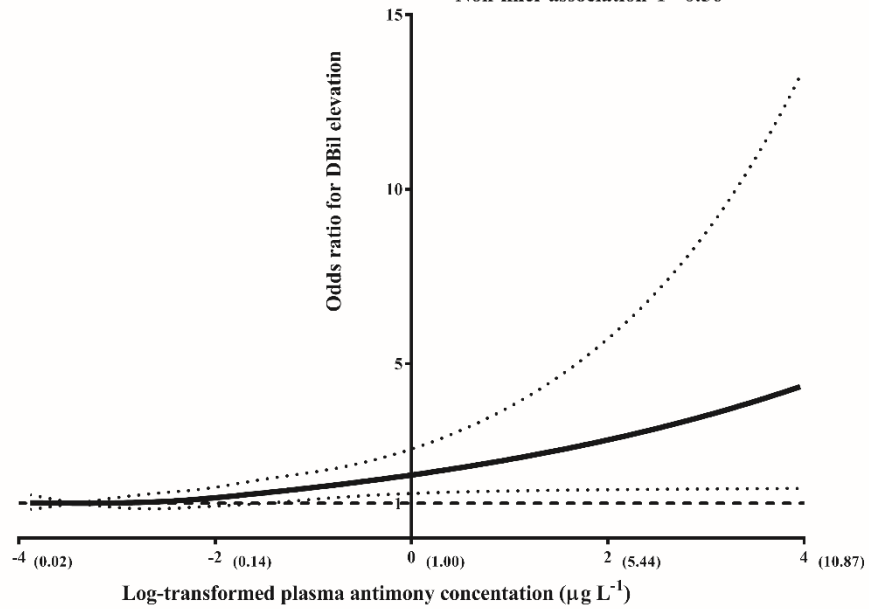
D

No. of events (%) 1227 (35.0)
Overall association $P=0.007$
Non-linear association $P=0.45$



E

No. of events (%) 526 (12.5)
Overall association $P=0.006$
Non-linear association $P=0.56$

**F**

No. of events (%) 703 (17.4)
Overall association $P=0.28$
Non-linear association $P=0.31$

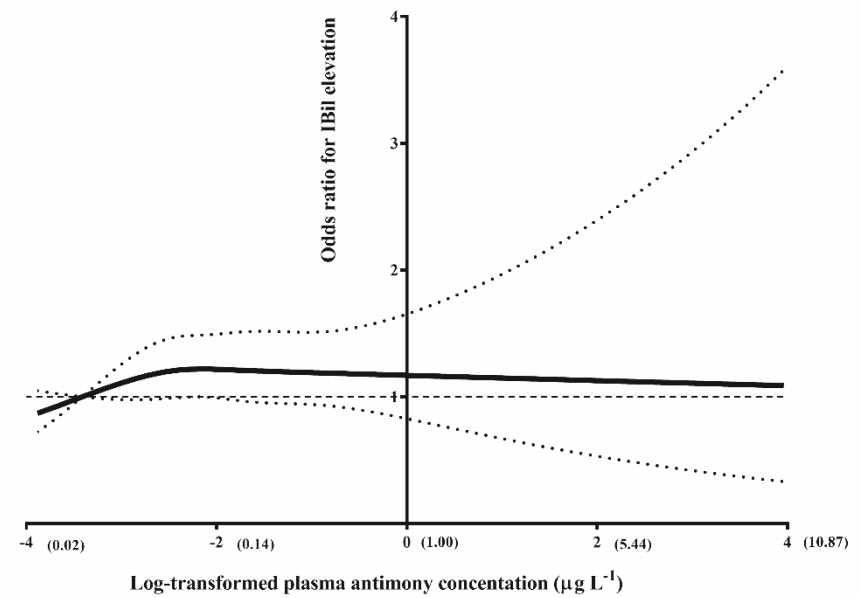


Table S2. Basic characteristic of participants free of acute hepatitis B virus infection at the follow-up survey (N=3924)

Abbreviation: HBV, hepatitis B virus.

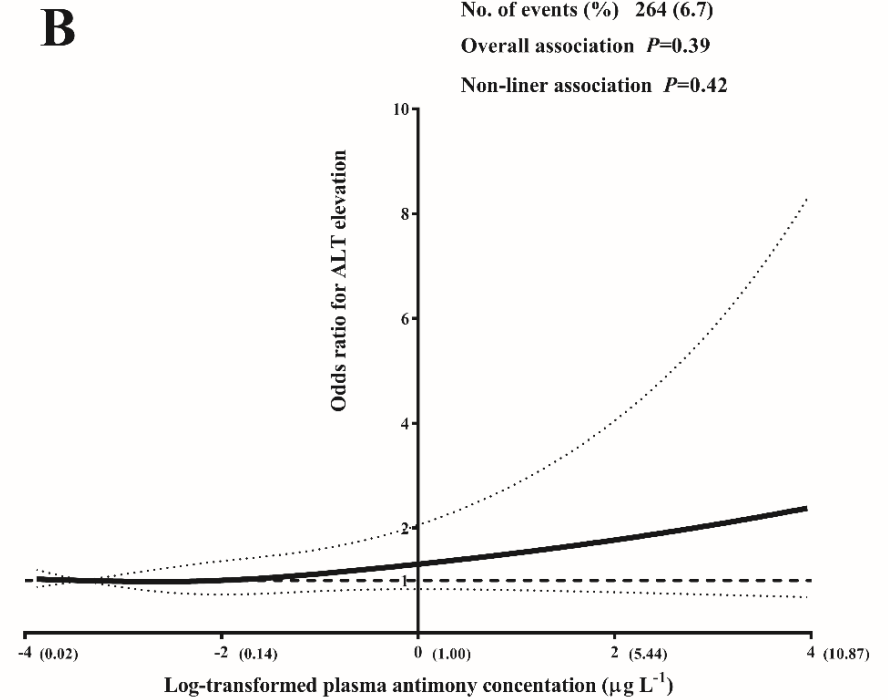
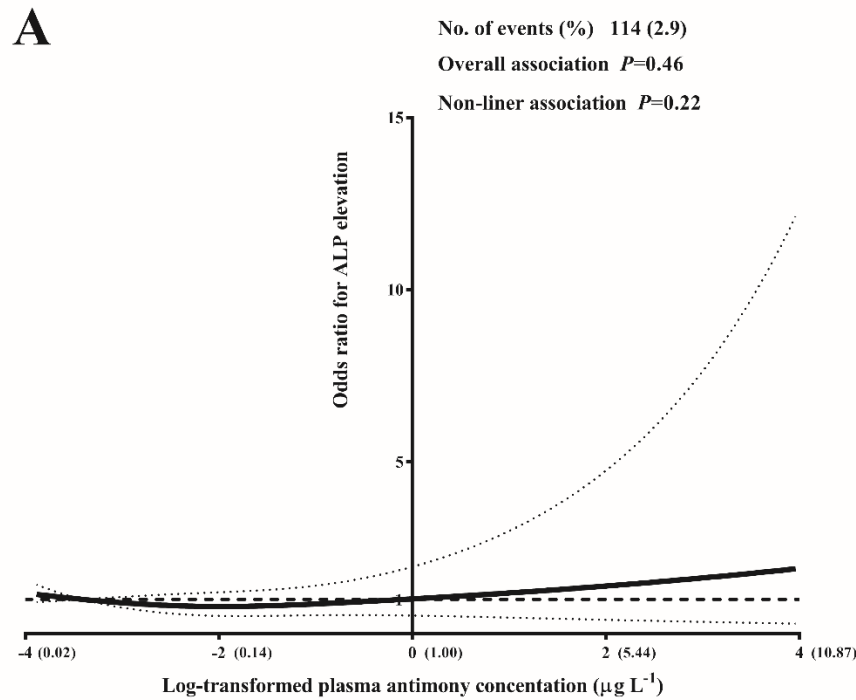
Variables	Participants without acute HBV infection
No of participants	3924
Age (years)	64.51 ± 7.43
Male, n (%)	2276 (48.1)
BMI (kg m ⁻²)	24.53 ± 3.27
Waist circumference (cm)	83.44 ± 9.35
Smoking status, n (%)	
Current smoker	799 (20.4)
Former smoker	425 (10.9)
Never smoker	2690 (68.7)
Drinking status, n (%)	
Current drinker	916 (23.3)
Former drinker	183 (4.7)
Never drinker	2825 (72.0)
Education level, n (%)	
Primary school or below	1246 (32.1)
Middle school	1453 (37.4)
High school or beyond	1183 (30.5)
Physical activity, n (%)	2236 (64.9)
eGFR, (mL min ⁻¹ 1.73 ⁻¹ m ⁻²)	87.20 ± 22.55
Hypertension, n (%)	2014 (51.3)
Hyperlipidemia, n (%)	1775 (45.2)
Family history of chronic hepatitis, n (%)	21 (0.5)
Plasma antimony, (µg L ⁻¹)	0.12 (0.07, 0.20)
ALP, (U L ⁻¹)	92 ± 28
ALT, (U L ⁻¹)	21 ± 19
AST, (U L ⁻¹)	24 ± 13
TBil, (µmol L ⁻¹)	14.54 ± 5.95
DBil, (µmol L ⁻¹)	4.64 ± 2.14
IBil, (µmol L ⁻¹)	9.90 ± 4.49

Figure S2. Association between plasma antimony concentration and incident elevation of liver function markers among participants free of acute hepatitis B virus infection at the follow-up survey (N=3924).

The lines represented adjusted odds ratios based on restricted cubic splines for the natural log-transformed concentration of plasma antimony in the fully adjusted logistic regression model.

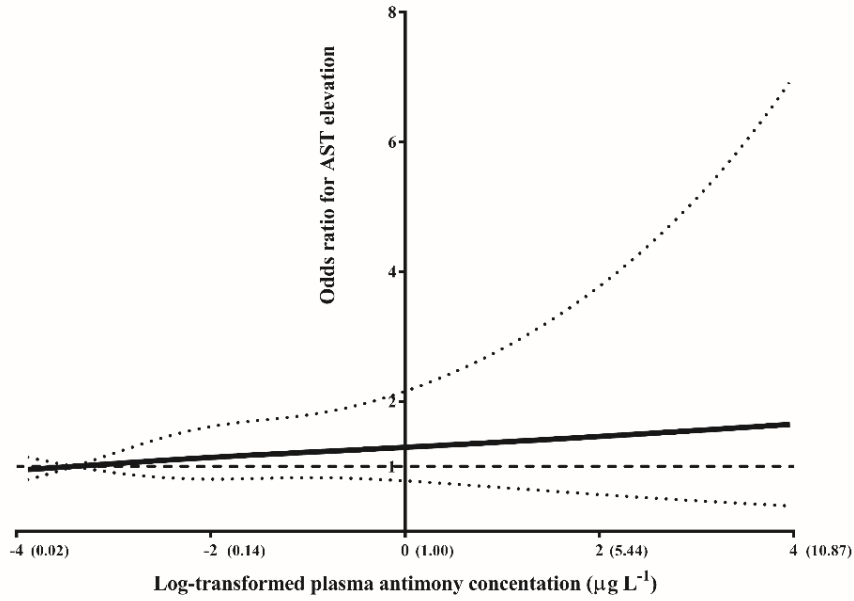
Knots were placed at the 5th, 50th, and 95th percentiles, with the reference value (OR=1) set at the 10th percentile.

The model was adjusted for age, gender, eGFR, BMI, smoking status, drinking status, education level, hypertension, hyperlipidemia, and future disease status.



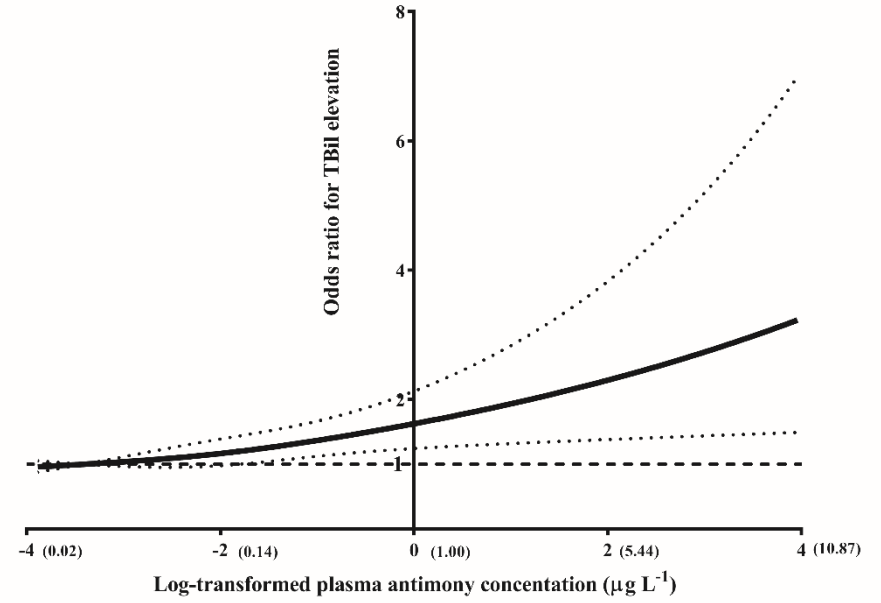
C

No. of events (%) 221 (5.6)
Overall association $P=0.59$
Non-linear association $P=0.88$



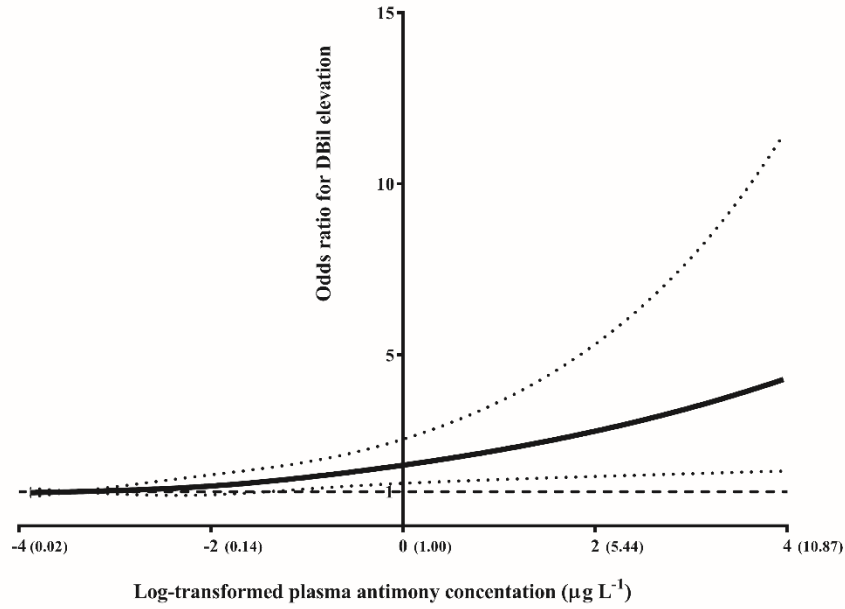
D

No. of events (%) 1037 (26.4)
Overall association $P=0.002$
Non-linear association $P=0.56$



E

No. of events (%) 449 (11.4)
Overall association $P=0.006$
Non-linear association $P=0.44$

**F**

No. of events (%) 601 (15.3)
Overall association $P=0.12$
Non-linear association $P=0.11$

