

Appendix 1: Questionnaire of chronic hepatitis B disease for the clinical trial registered in the Chinese Clinical Trial Register [ChiCTR-DCD-15006000]

Identification Number: _____

Time of enrollment (DD/MM/YY): _____

Part 1. Socio-demographic characteristics of the participants:

- 1.1 Name: _____; Age: _____ in years.
- 1.2 Gender: male/female
- 1.3 Date of birth (DD/MM/YY): _____
- 1.4 Occupation: Employed, specify _____; Unemployed _____
- 1.5 Address: City _____; Sub-city _____; Woreda _____
- 1.6 Phone number 1: _____; Phone number 2: _____
- 1.7 Education status: illiteracy [1]/primary school [2]/middle school [3]/junior college [4]/university and above [5]
- 1.8 Family's monthly income: _____
- 1.9 Number of family members: _____

Part 2. Diagnosis at the first interview:

- 2.1 HBV DNA positive: Yes/No. If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____, HBV DNA level _____
- 2.2 HBsAg positive: Yes/No. If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____, HBsAg level _____
- 2.3 Hepatic decompensation. Yes/No, gastric or esophageal varices bleeding, spontaneous bacterial peritonitis, hepatic encephalopathy, hepatopulmonary syndrome, hepatorenal syndrome, liver failure. If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____
- 2.4 Hepatocellular carcinoma Yes/No. If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____

Part 3. Medical history:

- 3.1 History of present illness: _____
If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____
- 3.2 Previous medical history: _____
If yes, when was it diagnosed? _____ weeks. The name of health center at diagnosis _____
- 3.3 The drug was taking _____
- 3.4 The history of surgery and blood transfusion: _____
- 3.5 The history of drinking: never/occasionally/frequently, drinking for _____ years, _____ g alcohol/week, abstinence for _____ years
- 3.6 The history of smoking: never/have (<10 cigarettes a day/10–20 cigarettes a day/>20 cigarettes a day), smoking for _____ years, quitting for smoking for _____ years
- 3.7 Family history:
 - Hepatitis B: Yes/No, father/mother/brothers and sisters/children _____
 - Fatty liver: Yes/No, father/mother/brothers and sisters/children _____
 - Obesity: Yes/No, father/mother/brothers and sisters/children _____
 - Hypertension: Yes/No, father/mother/brothers and sisters/children _____
 - Diabetes mellitus: Yes/No, father/mother/brothers and sisters/children _____
 - Coronary heart disease: Yes/No, father/mother/brothers and sisters/children _____
 - Others: _____

Part 4. Anthropometric indices:

4.1 Blood pressure _____/_____mmHg (left/right arm) _____ Time

4.2 Height _____cm; Weight _____kg; BMI (body mass index) = weight (kg)/height (m²) = _____

4.3 Waist circumference _____cm; Abdomen circumference _____cm; Hip circumference _____cm; Waist-hip ratio _____

4.4 Grip _____kg

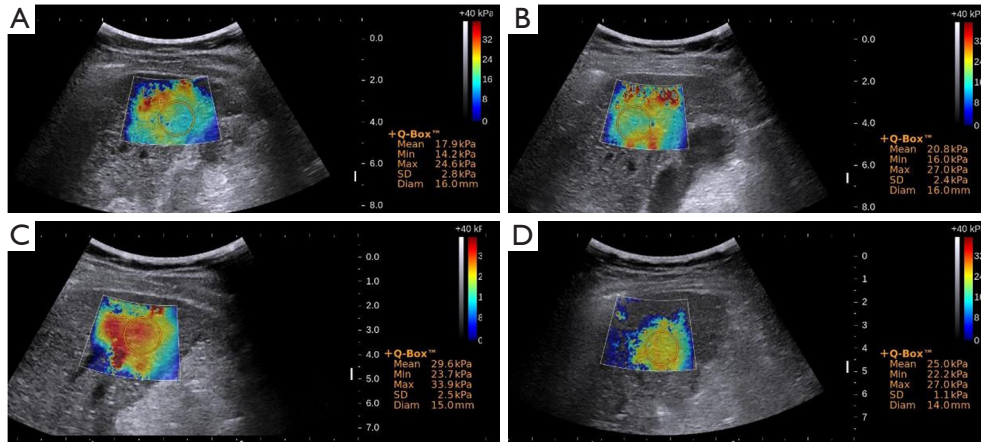


Figure S1 Representative images of two-dimensional shear-wave elastography (2D-SWE) exhibit liver stiffness measurements in a 65-year-old female with decompensated cirrhosis caused by chronic hepatitis B. Rectangular elasticity box (4 cm × 3 cm) was placed 1–2 cm under liver capsule in parenchyma area free of large vessels. Circular region of interest was 2 cm in diameter and was positioned in center of 2D-SWE elasticity box possibly. The operators aimed to achieve homogeneous color filling of the SWE ROI placed on the most homogeneous, stable elastogram area. (A) Before antiviral treatments; (B) increased liver stiffness after antiviral treatment for 3 years. Representative images of 2D-SWE exhibit liver stiffness measurements in another 58-year-old female; (C) before antiviral treatments; (D) decreased liver stiffness after antiviral treatment for 1 year.

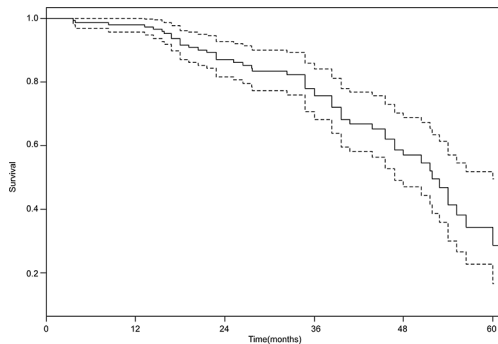


Figure S2 The cumulative rates of remaining free from the occurrence liver related events in Chronic hepatitis B related decompensated cirrhosis. The two dashed lines represent the 95% confident interval of the survival curves.

Table S1 Characteristics of patients with HBV-related decompensated cirrhosis at the last measurement of 2D-SWE and serum fibrosis markers

| Characteristic | Without liver-related events developed after follow-up (N=96) | With liver-related events developed after follow-up (N=53) | P value |
|-----------------------------------|---|--|---------|
| HBV DNA >20 IU/mL, % | 0 | 1.9 | 0.600 |
| HBeAg positive, % | 20.8 | 30.2 | 0.120 |
| HBsAg, log ₁₀ IU/mL | 2.6±1.1 | 2.4±1.2 | 0.320 |
| Time to HBV virus control, months | 6.8±4.2 | 7.2±5.5 | 0.220 |
| AFP, ng/mL | 5.1 (2.9–14.3) | 6.0 (3.3–10.8) | 0.330 |
| ALT, IU/L | 26.0 (19.0–34.0) | 29.0 (22.0–36.0) | 0.097 |
| AST, IU/L | 26.5 (22.0–35.2) | 35.0 (25.8–52.0) | 0.088 |
| GGT, IU/L | 28.5 (22.0–43.5) | 45.0 (27.0–70.0) | 0.010 |
| ALP, IU/L | 79.7±25.2 | 83.4±61.0 | 0.076 |
| Albumin, mg/L | 33.9±6.2 | 32.1±7.8 | 0.960 |
| Globulin, mg/L | 28.8±4.9 | 30.1±10.0 | 0.240 |
| Total bilirubin, µmol/L | 16.7 (11.2–21.7) | 22.1 (12.1–33.9) | 0.052 |
| Creatinine, µmol/L | 81.5 (60.4–103.6) | 110.8 (64.3–138.4) | 0.088 |
| Platelets, 10 ³ /µL | 155.0±83.1 | 130.9±77.1 | 0.670 |
| Prothrombin activity, % | 93.2±16.7 | 78.1±22.6 | 0.053 |
| Serum fibrosis markers | | | |
| Fibronectin, mg/L | 178.6±31.9 | 180.1±33.0 | 0.820 |
| HA, ng/mL | 91.8 (33.0–174.3) | 103.8 (37.5–169.7) | 0.110 |
| PIIINP, ng/mL | 6.1±2.5 | 8.5±3.7 | <0.001 |
| LN, ng/mL | 64.2±33.5 | 101.2±55.3 | <0.001 |
| CIV, ng/mL | 48.6±29.4 | 84.2±58.7 | <0.001 |
| HP, g/L | 0.6±0.4 | 0.5±0.4 | 0.160 |
| 2D-SWE, kPa | 11.8±6.6 | 16.8±9.0 | <0.001 |

Normally and non-normally distributed variables were expressed as mean ± standard deviation or median (25–75% quantiles), respectively. 2D-SWE, two-dimensional shear wave elastography; AFP, alpha-fetoprotein; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate transaminase; BMI, body mass index; CIV, collagen type IV; GGT, glutamyl transferase; HA, hyaluronic acid; HBeAg, hepatitis B envelope antigen; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; HP, haptoglobin; LN, laminin; LRE, liver-related event; PIIINP, procollagen III amino terminal propeptide.