

Supplementary Materials:

Table S1. Baseline characteristics of the patients who developed or did not develop decompensated portal hypertension decompensation.

| | | No PHD <i>n</i> = 289 (90%) | | PHD <i>n</i> = 32 (10%) | | |
|-----------------|----------------|--------------------------------|---|----------------------------|---|----------|
| Characteristics | | N (%) / Me | CI (95%) / P ₂₅ ; P ₇₅ | N (%) / Me | CI (95%) / P ₂₅ ; P ₇₅ | <i>p</i> |
| Sex | <i>Male</i> | 199 (68.9) | 63.4; 74.2 | 22 (68.8) | 51.8; 85.7 | 0.567 |
| | <i>Female</i> | 90 (31.1) | 25.8; 36.5 | 10 (31.3) | 14.3; 48.2 | |
| Alcohol user | <i>Yes</i> | 42 (14.6) | 10.5; 18.8 | 6 (18.8) | 4.5; 33.1 | 0.157 |
| | <i>Ex</i> | 62 (21.6) | 16.8; 26.4 | 11 (34.4) | 17.0; 51.8 | |
| IDUs | <i>Yes</i> | 5 (1.8) | 0.2; 3.3 | 0 (0) | - | 0.696 |
| | <i>Ex-IDUs</i> | 70 (24.6) | 19.5; 29.6 | 7 (21.9) | 6.7; 37.0 | |
| HT | | 114 (39.4) | 33.8; 45.1 | 12 (37.5) | 19.8; 55.2 | 0.495 |
| DM | | 61 (21.1) | 16.4; 25.8 | 8 (25.0) | 9.1; 40.9 | 0.377 |
| DL | | 21 (7.3) | 4.3; 10.3 | 0 (0) | - | 0.102 |
| CKD | | 12 (4.2) | 1.8; 6.5 | 2 (6.3) | 0; 15.1 | 0.416 |
| HD | | 37 (12.8) | 8.9; 16.7 | 6 (18.8) | 4.5; 33.1 | 0.244 |
| Genotype | 1 | 228 (78.9) | 74.2; 83.6 | 21 (65.6) | 48.2; 83.0 | 0.752 |
| | 2 | 4 (1.4) | 0; 2.7 | 0 | - | |
| | 3 | 37 (12.8) | 8.9; 16.7 | 7 (21.9) | 6.7; 37.0 | |
| | 4 | 20 (6.9) | 4.0; 9.9 | 4 (12.5) | 0.4; 24.6 | |
| Child-Pugh | A5 | 248 (87.9) | 84.1; 91.8 | 15 (46.9) | 26.6; 63.7 | <0.001 |
| | A6 | 11 (3.9) | 1.6; 6.2 | 4 (12.5) | 0.4; 25.4 | |
| | B7 | 17 (6.0) | 3.2; 8.8 | 11 (34.4) | 17.6; 53.3 | |
| | B8 | 6 (2.1) | 0.4; 3.8 | 2 (6.3) | 0; 15.6 | |
| | A | 259 (91.8) | 88.6; 95.1 | 19 (59.4) | 39.7; 76.5 | <0.001 |
| | B | 23 (8.2) | 4.5; 11.4 | 13 (40.6) | 23.5; 60.3 | |
| MELD | | 7 | (7; 7) | 8 | (7; 10.8) | <0.001 |

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|--------------------------------|--|----------|--------------|-----------|-------------|--------|
| TE (kPa) | | 15.1 | (11.8; 22.3) | 25 | (17.7;36.7) | 0.003 |
| FIB-4 | | 2.6 | (1.7; 4.8) | 6.1 | (4.3; 10.1) | <0.001 |
| APRI | | 1.1 | (0.6; 2.2) | 2.2 | (1.4; 4.3) | <0.001 |
| Previous decompensation | | 20 (6.9) | 4; 10 | 13 (40.9) | 23; 59 | <0.001 |

APRI: Aspartate-to-platelet ratio index; CI: Confidence interval; CKD: Chronic kidney disease; DL: Dyslipidemia; DM: Diabetes mellitus; PHD: Portal hypertension decompensation; HD: Heart Disease; HT: Hypertension; IDUs: Intravenous drug users; Me: Median; N: Number of patients; TE: Transient elastography.

Table S2. Factors associated with risk of developing portal hypertension decompensation and

| | | Portal hypertension decompensation | | | HCC | | |
|-------------------------|--------|------------------------------------|-------------|----------|-------|-------------|----------|
| Characteristics | | HR | CI (95%) | <i>p</i> | HR | CI (95%) | <i>p</i> |
| Age | | - | - | - | 1.06 | 0.99; 1.11 | 0.055 |
| Alcohol user | No | 1 | 0.57; 3.41 | 0.459 | - | - | - |
| | Yes | 1.40 | | | | | |
| Genotype | Others | - | - | - | 1 | 1.78; 18.64 | 0.003 |
| | GT 3 | - | | | 5.75 | | |
| DM | No | - | - | - | 1 | 1.25; 12.08 | 0.019 |
| | Yes | - | | | 3.89 | | |
| DL | No | 1 | 0.00; 21.45 | 0.324 | - | - | - |
| | Yes | 0.45 | | | | | |
| Child-Pugh | A | 1 | 3.66; 15.46 | <0.001 | 1 | 3.83; 41.79 | <0.001 |
| | B | 7.52 | | | 12.65 | | |
| Previous decompensation | No | 1 | 4.11; 16.99 | <0.001 | - | - | - |
| | Yes | 8.36 | | | | | |
| MELD | | 1.04 | 0.99; 1.07 | 0.057 | 1.04 | 0.99; 1.09 | 0.158 |
| TE (kPa) | | 1.03 | 0.99; 1.06 | 0.097 | - | - | - |
| FIB-4 | | 1.12 | 1.07; 1.17 | <0.001 | 1.12 | 1.04; 1.21 | 0.003 |
| APRI | | 1.20 | 1.09; 1.31 | <0.001 | 1.18 | 1.00; 1.39 | 0.050 |
| FIB-4 (1 year) | | 1.44 | 1.29; 1.59 | <0.001 | 1.29 | 1.07; 1.56 | 0.008 |
| APRI (1 year) | | 1.09 | 0.99; 1.19 | 0.053 | 1.06 | 0.86; 1.31 | 0.605 |
| FIB-4 (2 years) | | 1.51 | 1.33; 1.71 | <0.001 | 1.40 | 1.18; 1.65 | <0.001 |
| APRI (2 years) | | 4.17 | 2.82; 6.17 | <0.001 | 2.61 | 1.50; 4.53 | 0.001 |

HCC (univariate analysis).

APRI: Aspartate-to-platelet ratio index; CI: Confidence interval; DL: Dyslipidemia; DM: Diabetes mellitus; HR: Hazard Ratio; TE: Transient elastography.

Table S3. Baseline characteristics of the patients who developed or did not develop HCC.

| | | No HCC <i>n</i> = 309 (96.3%) | | HCC <i>n</i> = 12 (3.7%) | | |
|-----------------|----------------|----------------------------------|---|-----------------------------|---|----------|
| Characteristics | | N (%) / Me | CI (95%) / P ₂₅ ; P ₇₅ | N (%) / Me | CI (95%) / P ₂₅ ; P ₇₅ | <i>p</i> |
| Sex | <i>Male</i> | 212 (68.6) | 63.4; 73.8 | 9 (75.0) | 46.3; 100 | 0.455 |
| | <i>Female</i> | 97 (31.4) | 26.2; 36.6 | 3 (25.0) | 0; 53.7 | |
| Alcohol user | <i>Yes</i> | 46 (15.0) | 11.0; 19.0 | 2 (16.7) | 0; 41.4 | 0.635 |
| | <i>Ex</i> | 69 (22.5) | 17.8; 27.2 | 4 (33.3) | 2.1; 64.6 | |
| IDUs | <i>Yes</i> | 5 (1.6) | 0.2; 3.1 | 0 | - | 0.364 |
| | <i>Ex-UDVP</i> | 76 (24.9) | 20.0; 29.8 | 1 (8.3) | 0; 26.7 | |
| HT | | 122 (39.5) | 34.0; 45.0 | 4 (33.3) | 2.1; 64.6 | 0.458 |
| DM | | 63 (20.5) | 15.9; 24.9 | 6 (50.0) | 16.8; 83.2 | 0.025 |
| DL | | 20 (6.5) | 3.7; 9.2 | 1 (8.3) | 0; 26.7 | 0.562 |
| CKD | | 14 (4.5) | 2.2; 6.9 | 0 (0) | - | 0.580 |
| HD | | 41 (13.4) | 9.5; 17.1 | 2 (16.8) | 0; 41.4 | 0.495 |
| Genotype | 1 | 242 (78.3) | 73.7; 82.9 | 7 (58.3) | 25.6; 91.1 | 0.032 |
| | 2 | 4 (1.3) | 0.03; 2.6 | 0 | - | |
| | 3 | 39 (12.6) | 8.9; 16.3 | 5 (41.7) | 9.0; 74.4 | |
| | 4 | 24 (7.8) | 4.8; 10.8 | 0 | - | |
| Child-Pugh | <i>A5</i> | 257 (85.1) | 81.1; 89.1 | 6 (50.0) | 10.4; 80.5 | <0.001 |
| | <i>A6</i> | 15 (5.0) | 2.5; 7.4 | 0 | - | |
| | <i>B7</i> | 24 (7.9) | 4.9; 11.0 | 4 (33.3) | 2.5; 70.3 | |
| | <i>B8</i> | 6 (2.0) | 0.4; 3.6 | 2 (16.7) | 0; 45.4 | |
| | <i>A</i> | 272 (90.1) | 86.7; 93.5 | 6 (50.0) | 10.4; 80.5 | <0.001 |
| | <i>B</i> | 30 (9.9) | 6.5; 13.3 | 6 (50.0) | 19.5; 89.6 | |

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|--------------------------------|--|----------|------------|----------|-------------|-------|
| MELD | | 7 | (7; 7.5) | 7.5 | (7.0; 12.8) | 0.097 |
| FIB-4 baseline | | 2.8 | (1.7; 5.3) | 5.4 | (3.4; 9.6) | 0.011 |
| APRI baseline | | 1.3 | (0.6; 2.2) | 2.1 | (0.8; 5.2) | 0.152 |
| Previous decompensation | | 29 (9.4) | 6; 13 | 2 (16.7) | 2; 65 | 0.340 |

APRI: Aspartate-to-platelet ratio index; CI: Confidence interval; CKD: Chronic kidney disease; DL: Dyslipidemia; DM: Diabetes mellitus; HCC: Hepatocellular carcinoma; HD: Heart disease; HT: Hypertension; IDUs: Intravenous drug users; Me: Median; N: Number of patients; TE: Transient elastography.