**Supplementary Table 1.** Bacterial Infections of *NOD2* positive and negative patients (presence of a *NOD2* risk variant)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | ***NOD2*-positive** | | | | ***NOD2*-negative** | | | **p-Value\*** | **p-Value\*\*** | **p-Value\*\*\*** |
|  | | *Decompensated (n=116)* | *Compensated*  *(n=42)* | *Total*  *(n=158)* | *Decompensated*  *(n=415)* | *Compensated*  *(n=162)* | *Total*  *(n=577)* | *Decompensated*  *(n=415)* | *Compensated*  *(n=162)* | *Total*  *(n=577)* |
| BI (yes) | | 58 (50.0) | 12 (28.6) | 58 (44.3) | 180 (41.4) | 21 (13.9) | 193 (33.4) | 0.11 | **0.02** | **0.02** |
| Urinary tract BI (yes) | | 20 (17.2) | 5 (11.9) | 25 (15.8) | 65 (15.7) | 16 (9.9) | 81 (14.0) | 0.67 | 0.78 | 0.61 |
| Pulmonal BI (yes) | | 20 (17.2) | 1 (2.4) | 21 (13.3) | 46 (11.1) | 4 (2.5) | 50 (8.7) | 0.08 | 1.0 | 0.09 |
| SBP (yes) | | 15 (12.9) | *N/A* | 15 (9.5) | 45 (10.4) | *N/A* | 43 (7.5) | 0.41 | *N/A* | 0.41 |
| Sepsis (yes) | | 8 (6.9) | 2 (4.8) | 10 (6.3) | 29 (7.0) | 2 (1.2) | 31 (5.4) | 1.0 | 0.19 | 0.70 |
| C. diff. colitis (yes) | | 1 (0.9) | 1 (2.4) | 2 (1.3) | 5 (1.2) | 0 (0) | 5 (0.9) | 1.0 | 0.21 | 0.65 |
| Spontaneous Bacteremia (yes) | | 10 (8.6) | 2 (14.8) | 12 (7.6) | 15 (3.6) | 2 (1.2) | 17 (2.9) | **0.04** | 0.19 | **0.02** |
| Other BI (yes) | | 18 (15.5) | 5 (11.9) | 23 (14.6) | 54 (13.0) | 7 (4.3) | 61 (10.6) | 0.54 | 0.07 | 0.16 |
| Grampositive BI (yes) | | 17 (14.7) | 3 (7.1) | 20 (12.7) | 49 (11.8) | 5 (3.1) | 54 (9.4) | 0.43 | 0.37 | 0.23 |
| Gramnegative BI (yes) | | 11 (9.5) | 3 (7.1) | 14 (8.9) | 40 (9.6) | 7 (4.3) | 47 (8.1) | 1.0 | 0.43 | 0.75 |

Values are given as frequencies and percentages. Significant p values are highlighted in bold, comparing patients with and without in carriage of a *NOD2* risk variant. BI, bacterial infection; C-diff. Colitis; clostridium difficile associated colitis; NA, not applying; SBP, spontaneous bacterial peritonitis. \*Comparing presence/absence of a *NOD2* risk variant in patients with decompensated cirrhosis. \*\*Comparing presence/absence of a *NOD2* risk variant in patients with compensated cirrhosis. \*\*\*Comparing presence/absence of a *NOD2* risk variant in all patients.

**Supplementary Table 2.** Comparison of compensated patients with estimation of CSPH (HVPG or LSPS) versus patients

without an estimation of CSPH

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Estimation of CSPH**  **(N=133)** | **No Estimation of CSPH**  **(N=71)** | **p-Value** |
| Age (years) | 60 (52 -68) | 65 (56-71) | 0.12 |
| Gender (male) | 83 (62.4) | 51 (71.8) | 0.22 |
| *NOD2* risk variant (yes) | 22 (16.5) | 22 (28.2) | 0.07 |
| Spleen size (cm) | 12.1 (10.7-13.7) | 12.8 (10.8-14.5) | 0.39 |
| Serum sodium (mmol/l) | 140 (138-142) | 140 (137-143) | 0.58 |
| Creatinine (mg/l) | 0.8 (0.7-0.9) | 0.9 (0.7-1.0) | 0.75 |
| Bilirubin (mg/dl) | 0.8 (0.5-1.1) | 0.69 (0.41-1.23) | 0.17 |
| ASAT (U/l) | 46 (32-81) | 43 (28-58) | 0.62 |
| ALAT (U/l) | 44 (29-87) | 36.6 (27-5ß) | **0.03** |
| CRP (mg/dl) | 2.0 (0.8-4.8) | 4.4 (1.6-14.0) | **0.01** |
| Albumin (g/l) | 42 (38-45) | 38.8 (33-43) | **˂0.001** |
| Hemoglobin (g/dl) | 14.2 (12.7-15.4) | 13.5 (11.8-14.5) | **0.01** |
| Platelets (x109) | 151 (100-194) | 165 (109-223) | 0.23 |
| WBC (x109) | 6.2 (4.8-7.9) | 6.2 (4.8-8.1) | 0.82 |
| INR | 1.1 (1.0-1.2) | 1.1 (1.0-1.3) | 0.80 |
| PTT (seconds) | 27 (25-30) | 30 (28.-33) | **0.003** |
| BI (yes) | 18 (13.5%) | 15 (21.1%) | 0.17 |

Values are given as median or frequencies and percentages. Significant P values are highlighted in bold. BI, bacterial infection;

CRP, C-reactive protein; CSPH, clinical significant portal hypertension; HPVG, hepatic venous pressure gradient;

LSPS, liver stiffness to spleen/platelet score; OR, Odds ratio; WBC, white blood cells; 95% CI, 95% confidence interval.

**Supplementary Table 3.** Subgroup analysis of independent predictors of BI in the subgroup with CSPH estimation in compensated cirrhosis

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables introduced** | **N=** | **Final model** | **OR** | **95% CI** | **P-Value** | **AIC** | **AICc** | **BIC** |
| NOD2, alb, Hb | 132 | NOD2  Hb | 4.36  0.62 | 1.34-14.13  0.47-0.84 | 0.01  0.001 | - | - | - |
| NOD2, alb, PTT | 131 | NOD2  PTT | 4.81  1.12 | 1.53-15.12  1.02-1.21 | 0.007  0.02 | - | - | - |
| NOD2, alb, platelets | 132 | NOD2  alb | 4.10  0.91 | 1.34-12.53  0.83-1.00 | 0.01  0.04 | 73.68 | 73.77 | 82.33 |
| NOD2, alb, PPI | 132 | NOD2  alb | 4.10  0.91 | 1.34-12.53  0.83-1.00 | 0.01  0.04 | - | - | - |
| NOD2, alb, Spleen size | 131 | NOD2  alb | 4.03  0.91 | 1.32-12.35  0.82-0.99 | 0.02  0.04 | - | - | - |
| NOD2, alb, CSPH | 132 | NOD2  CSPH | 4.79  4.35 | 1.51-15.18  1.29-14.66 | 0.008  0.02 | - | - | - |
| NOD2, Hb, PTT | 132 | NOD2  Hb | 4.41  0.63 | 1.36-14.28  0.47-0.84 | 0.01  0.002 | - | - | - |
| NOD2, Hb, platelets | 133 | NOD2  Hb | 4.43  0.63 | 1.37-14.36  0.47-0.84 | 0.01  0.002 | 83.31 | 83.40 | 91.98 |
| NOD2, Hb, PPI | 133 | NOD2  Hb | 4.43  0.63 | 1.37-14.36  0.47-0.84 | 0.01  0.002 | - | - | - |
| NOD2, Hb Spleen size | 132 | NOD2  Hb | 4.36  0.63 | 1.35-14.15  0.47-0.84 | 0.01  0.002 | - | - | - |
| NOD2, Hb, CSPH | 133 | NOD2  Hb | 4.43  0.63 | 1.37-14.36  0.47-0.84 | 0.01  0.002 | - | - | - |
| NOD2, PTT, platelets | 132 | NOD2  PTT | 4.85  1.11 | 1.54-15.26  1.02-1.21 | 0.007  0.02 | 62.73 | 62.82 | 71.38 |
| NOD2, PTT, PPI | 132 | NOD2  PTT  PPI | 5.29  1.11  2.49 | 1.64-17.13  1.02-1.22  0.85-7.34 | 0.005  0.02  0.1 | 74.31 | 74.50 | 85.84 |
| NOD2, PTT, Spleen size | 131 | NOD2  PTT | 4.78  1.11 | 1.52-15.05  1.02-1.21 | 0.007  0.02 | - | - | - |
| NOD2, PTT, CSPH | 132 | NOD2  PTT  CSPH | 5.05  1.08  3.42 | 1.54-16.48  0.99-1.19  0.99-11.88 | 0.007  0.09  0.05 | 72.64 | 72.83 | 84.17 |
| NOD2, platelets, PPI | 133 | NOD2 | 4.24 | 1.42-12.64 | 0.009 | 15.77 | 15.80 | 18.66 |
| NOD2, platelets, Spleen size | 132 | NOD2 | 4.20 | 1.41-12.52 | 0.01 | - | - | - |
| NOD2, platelets, CSPH | 133 | NOD2  Platelets  CSPH | 4.82  1.01  7.32 | 1.48-15.73  1.00-1.02  1.81-29.61 | 0.009  0.06  0.005 | 93.88 | 94.07 | 105.45 |
| NOD2, PPI, Spleen size | 132 | NOD2 | 4.20 | 1.41-12.52 | 0.01 | - | - | - |
| NOD2, PPI, CSPH | 133 | NOD2  CSPH | 4.86  4.30 | 1.53-15.39  1.27-14.48 | 0.007  0.02 | 17.80 | 17.89 | 26.47 |
| NOD2, Spleen size, CSPH | 132 | NOD2  CSPH | 4.83  4.24 | 1.52-15.29  1.23-14.32 | 0.007  0.02 | - | - | - |

AIC, Akaike information criterion; Alb, Albumin; BIC, Bayesian information criterion; AICc, corrected Akaike information criterion;

CSPH, clinical significant portal hypertension; Hb, Hemoglobin; MELD-Score, Model of end stage liver disease;

*NOD2*, carriage of a *NOD2* risk allele. When the same model was repeatedly identified, the calculation of AIC, AICc, BIC was done with

the subset, which included the greatest number of patients.