**Supplementary Table 3: Subgroup analysis for group 3 participants by the pattern of HE progression and by baseline INR**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics^** |  |  |  | **3P**  **(N=77)** | **3R**  **(N=143)** | **3PR**  **(N=53)** | **3L**  **(N=65)** | **3H**  **(N=38)** |  |
| **3M**  **(N=71)** | **3S**  **(N=291)** | **p** | **P** |
|  |  |  |
| **Male (%) (N=409)** | 59% | 52% |  | 61% | 49% | 51% | 54% | 47% |  |
| **Age(years) (median,q1-q3) (N=409)** | 4.4(1.5,10.0) | 4.5(1.3,12.5) |  | 7.8(3.3,14.2) | 4.2(1.2,10.8) | 3.1(0.8,9.4) | 2.7(0.9,8.5) | 3.4(0.5,11.3) | \*\* |
| **Final Diagnosis (N=409) (%)** |  |  |  |  |  |  |  |  | \*\* |
| Indeterminate | 56% | 53% |  | 57% | 50% | 58% | 58% | 45% |  |
| Autoimmune Hepatitis | 1% | 8% |  | 8% | 6% | 13% | 6% | 0% |  |
| Metabolic disorder | 7% | 4% |  | 0% | 10% | 6% | 3% | 3% |  |
| Viral Hepatitis | 7% | 10% |  | 12% | 8% | 2% | 12% | 11% |  |
| Other | 28% | 25% |  | 23% | 25% | 21% | 20% | 42% |  |
| **Entry Coma (N=409) (%)** |  |  |  |  |  |  |  |  |  |
| I + II | 72% | 74% |  | 89% | 78% | 87% | 100% | 0% |  |
| III + IV | 28% | 26% |  | 10% | 22% | 13% | 0% | 100% |  |
| **Peak Coma (N=409) (%)** |  |  |  |  |  |  |  |  |  |
| I + II | 66% | 55% |  | 29% | 77% | 61% | 100% | 0% |  |
| III + IV | 33% | 45% |  | 72% | 23% | 39% | 0% | 100% |  |
| **Seizure (N=404) (%)** | 7% | 7% |  | 7% | 12% | 4% | 2% | 16% | \* |
| **Jaundice (N = 387) (%)** | 62% | 79% | \*\* | 95% | 62% | 77% | 84% | 70% |  |
| **Fever (N=404) (%)** | 45% | 45% |  | 49% | 47% | 42% | 42% | 46% |  |
| **In ICU (N=386) (%)** | 79% | 81% |  | 81% | 69% | 57% | 79% | 97% | \*\*\* |
| **Hemodialysis (N=386) (%)** | 1% | 3% |  | 0% | 0% | 0% | 0% | 19% | \*\*\* |
| **On ICP Monitor (N=385) (%)** | 7% | 4% |  | 3% | 4% | 0% | 2% | 19% | \*\*\* |
| **INR (N=362) (median, q1-q3)** | 1.6(1.4,1.8) | 3.2(2.4,4.7) |  | 3.6(2.5,5) | 2.3(1.8,3) | 2.9(2.1,4) | 2.7(2.2,4.6) | 3.3(2.1,4.4) | \*\*\* |
| **Total Bilirubin (mg/dL) (N=380)** | 6.3(2.7,12.2) | 14.5(5.2,21.0) | \*\*\* | 20.0(12.2,24.9) | 5.8(2.1,14.3) | 12.6(6.8,20) | 17.5(9.6,21.7) | 11.6(4.2,15.9) | \*\*\* |
| **A ammonia (µmol/L) (N=97)** | 72(40,84) | 110(63,195) | \*\* | 143(86,227) | 58(32,99) | 65(52,76) | 94(56,195) | 133(75,202) | \*\*\* |
| **V ammonia (µmol/L) (N=256)** | 45(33,83) | 79(47,119) | \*\*\* | 88(49,120) | 57(39,94) | 45(35,78) | 62(36,107) | 108(87,162) | \*\*\* |
| **Lactate (mmol/L) (N=229)** | 2.5(1.7,5.1) | 2.8(2.0,5.4) |  | 3.5(2.5,9.3) | 2.4(1.8,4.1) | 3.2(1.9,4.6) | 2.4(1.7,4.3) | 4.4(2.4,8.3) | \*\* |
| **Patterns of HE evolution, (N=376) (%)**  -Progress  -Regress  -Fluctuate  -Mild Throughout  -Severe Throughout | 6%  60%  12%  13%  9% | 26%  31%  12%  20%  11% | **\*\*\*** |  |  |  |  |  |  |
| **21 day Outcome (N=408) (%)** |  |  | \*\*\* |  |  |  |  |  | \*\*\* |
| Death by day 7 | 7% | 11% |  | 18% | 0% | 4% | 3% | 34% |  |
| LT by day 7 | 0% | 42% |  | 65% | 7% | 21% | 54% | 26% |  |
| Death between day 8-21 | 3% | 7% |  | 8% | 1% | 8% | 9% | 21% |  |
| LT between day 8-21 | 7% | 4% |  | 3% | 4% | 19% | 6% | 0% |  |
| Alive at day 21 | 73% | 37% |  | 6% | 88% | 49% | 28% | 18% |  |

\* p-value between 0.01 and 0.05, \*\* 0.001≤p<0.01, and \*\*\* p<.001. The p-values correspond to the difference of the characteristics across the 5 subgroups.

3M – Mild Coagulopathy plus HE present

3S – Severe Coagulopathy plus HE present

3P- Progression of HE

3R-Regression of HE

3PR - Fluctuation (progression and regression) of HE observed during surveillance period

3L – Mild (low) HE grade (I-II) recorded throughout

3H – Severe (high) HE grade (II or IV) recorded throughout

^ In the first column, N reflects the sample sizes among all Group 3 participants. Some of the Group 3 participants cannot be classified into subgroups due to missing data (Figure 1).