**Supplemental Table 1** – Patient characteristics and perioperative outcomes compared between patients with acute rejection (AR) and without AR (No AR) within 20 months for HCV patients only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **AR (n=31)** | | |  | **No AR (n=52)** | | |  | **p-value** |
|  | **HCC-Recurrence**  **(n=9)** | **No HCC-Recurrence**  **(n=22)** | **p-value** |  | **HCC-**  **Recurrence**  **(n=4)** | **No HCC-Recurrence**  **(n=48)** | **p-value** |  |  |
| Gender (M:W) | 7:2 | 13:9 | 0.324 |  | 4:0 | 31:17 | 0.290 |  | 0.795 |
| Recipient age (in years) | 59 (46-63) | 56 (31-68) | 0.881 |  | 61 (52-66) | 56 (44-69) | 0.324 |  | 0.936 |
| Donor age (in years) | 66 (24-78) | 59 (8-81) | 0.716 |  | 56 (42-76) | 54 (19-84) | 0.703 |  | 0.205 |
| AFP > 200µg/l | 1 (16.7) | 4 (19.0) | 1.0 |  | 1 (25.0) | 5 (11.6) | 0.432 |  | 0.503 |
| Time to transplant > 120d | 5 (55.6) | 16 (80.0) | 0.173 |  | 3 (75.0) | 22 (47.8) | 0.609 |  | 0.052 |
| Pre-transplant MELD | 12 (8-21) | 10 (6-36) | 0.068 |  | 10 (8-10) | 12 (1-25) | 0.300 |  | 0.584 |
| Preoperative treatment | 7 (77.8) | 12 (54.5) | 0.228 |  | 3 (75.0) | 30 (62.5) | 1.0 |  | 0.843 |
| Mortality (%) | 7 (77.8) | 4 (18.2) | **0.002** |  | 4 (100.0) | 17 (35.4) | **0.022** |  | 0.657 |
| OS (months) | 72 (25-165) | 107 (39-212) | **0.001** |  | 39 (23-82) | 91 (21-219) | **<0.001** |  | 0.611 |
| Time until recurrence (m) | 48 (17-120) | - | - |  | 18 (12-21) | - | - |  | **0.005** |
| NLR >4 | 1 (20.0) | 3 (18.8) | 1.0 |  | 1 (50.0) | 8 (25.0) | 0.465 |  | 0.529 |
| CIT (min) | 720 (340-1118) | 488 (147-751) | **0.007** |  | 600 (550-845) | 586 (77-1274) | 0.455 |  | 0.069 |
| CIT >10h | 5 (55.6) | 3 (13.6) | **0.015** |  | 2 (50.0) | 17 (37.0) | 0.629 |  | 0.258 |
| WIT (min) | 47 (35-59) | 45 (16-80) | 0.447 |  | 48 (35-60) | 47 (30-79) | 0.948 |  | 0.202 |
| WIT >50min | 2 (28.6) | 2 (13.3) | 0.565 |  | 1 (25.0) | 11 (32.4) | 1.0 |  | 0.258 |
| T3/T4 stage | 1 (11.1) | 1 (4.8) | 0.517 |  | 1 (25.0) | 7 (14.9) | 0.506 |  | 0.233 |
| HCC bilobar | 3 (33.3) | 4 (18.2) | 0.384 |  | 1 (25.0) | 11 (22.9) | 1.0 |  | 0.958 |
| Poor differentiation (G>2) | 2 (25.0) | 2 (11.1) | 0.563 |  | 1 (25.0) | 4 (10.3) | 0.402 |  | 0.653 |
| Vascular invasion | 2 (28.6) | 4 (23.5) | 1.0 |  | 2 (50.0) | 6 (14.3) | 0.134 |  | 0.450 |
| Within MILAN | 6 (66.7) | 20 (90.9) | 0.131 |  | 1 (25.0) | 32 (68.1) | 0.120 |  | 0.061 |
| Number of AR within 20 months | 1 (1-3) | 1 (1-3) | 0.716 |  | - | - | - |  | - |
| Extrahepatic recurrence | 6 (66.7) | - | - |  | 1 (25.0) | - | - |  | 0.065 |
| Intrahepatic recurrence | 0 (0.0) | - | - |  | 2 (50.0) | - | - |  |
| Both extra- and intrahepatic recurrence | 3 (33.3) | - | - |  | 1 (25.0) | - | - |  |
| HCV viremia at TX | 159000 (0-5830000) | 1610000 (0-22500000) | 0.094 |  | 510500 (179000-842000) | 1534000 (0-25900000) | 0.671 |  | 0.855 |
| HCV viremia duration postLT in months | 38 (0-72) | 39 (0-211) | 0.572 |  | 54 (27-82) | 32 (0-165) | 0.557 |  | 0.400 |
| HCV recurrence | 8 (88.9) | 21 (95.5) | 0.503 |  | 4 (100.0) | 38 (82.6) | 1.0 |  | 0.204 |
| Sustained virological response | 6 (66.7) | 19 (86.4) | 0.320 |  | 0 (0.0) | 38 (84.4) | **0.033** |  | 0.982 |
| INF | 1 (11.1) | 12 (54.5) | 0.054 |  | 0 (0.0) | 20 (41.7) | 0.400 |  | 0.706 |
| RBV | 0 (0.0) | 0 (0.0) |  | 0 (0.0) | 1 (2.1) |  |
| INF+RBV | 4 (44.4) | 7 (31.8) |  | 2 (50.0) | 13 (27.1) |  |
| No HCV therapy | 4 (44.4) | 3 (13.6) |  | 2 (50.0) | 14 (29.2) |  |
| DAA therapy | 1 (20.0) | 12 (63.2) | 0.142 |  | 0 (0.0) | 18 (52.9) | 0.486 |  | 0.752 |
| **Biopsy after 1 year**  Fibrosis  -stage, median  Steatosis  - in %  Hepatitis  -grade, median | 7 (87.5)  2 (0-3)  6 (66.7)  20 (0-80)  9 (100.0)  1 (1-3) | 12 (92.3)  2 (0-3)  17 (81.0)  15 (0-80)  21 (100.0)  1 (1-3) | 1.0  0.750  0.640  0.862  1.0  0.722 |  | 2 (100.0)  1 (1-1)  1 (33.3)  0 (0-40)  2 (66.7)  1 (0-1) | 28 (84.8)  1 (0-1)  26 (63.4)  7.5 (0-80)  34 (81.0)  1 (0-4) | 1.0  0.484  0.549  0.635  0.497  0.345 |  | 0.700  0.196  0.167  0.138  **0.009**  **0.037** |

Bold text is used for headings and for significant results;AR – acute rejection; HCC – hepatocellular carcinoma; AFP – Alpha-fetoprotein; MELD – Model for End-Stage Liver Disease; OS – overall survival; NLR – neutrophil lymphocyte ratio; CIT – cold ischemia time; WIT – warm ischemia time; \*p-value comparing HCC recurrence with AR and HCC recurrence without AR