Supplementary table1. Baseline characteristics of ICC patients

| Variables | Total (n = 172) | test (n = 52) | train (n = 120) | *P* |
| --- | --- | --- | --- | --- |
|
| Gender, n(%) |  |  |  | 0.841 |
|  Male | 84 (48.84) | 26 (50.00) | 58 (48.33) |  |
|  Female | 88 (51.16) | 26 (50.00) | 62 (51.67) |  |
| Age, n(%) |  |  |  | 0.421 |
|  <60 | 49 (28.49) | 17 (32.69) | 32 (26.67) |  |
|  ≥60 | 123 (71.51) | 35 (67.31) | 88 (73.33) |  |
| SATI, n(%) |  |  |  | 0.375 |
|  Low | 61 (35.47) | 21 (40.38) | 40 (33.33) |  |
|  High | 111 (64.53) | 31 (59.62) | 80 (66.67) |  |
| VATI, n(%) |  |  |  | 0.436 |
|  Low | 75 (43.60) | 25 (48.08) | 50 (41.67) |  |
|  High | 97 (56.40) | 27 (51.92) | 70 (58.33) |  |
| VSR, n(%) |  |  |  | 0.371 |
|  Low | 97 (56.40) | 32 (61.54) | 65 (54.17) |  |
|  High | 75 (43.60) | 20 (38.46) | 55 (45.83) |  |
| SMD, n(%) |  |  |  | 0.838 |
|  Low | 134 (77.91) | 40 (76.92) | 94 (78.33) |  |
|  High | 38 (22.09) | 12 (23.08) | 26 (21.67) |  |
| SMI, n(%) |  |  |  | 0.615 |
|  Low | 81 (47.09) | 26 (50.00) | 55 (45.83) |  |
|  High | 91 (52.91) | 26 (50.00) | 65 (54.17) |  |
| IMATI, n(%) |  |  |  | 0.100 |
|  Low | 69 (40.12) | 16 (30.77) | 53 (44.17) |  |
|  High | 103 (59.88) | 36 (69.23) | 67 (55.83) |  |
| FMF, n(%) |  |  |  | 0.505 |
|  Low | 106 (61.63) | 34 (65.38) | 72 (60.00) |  |
|  High | 66 (38.37) | 18 (34.62) | 48 (40.00) |  |
| BMI, n(%) |  |  |  | 0.186 |
| <25 | 131 (76.16) | 43 (82.69) | 88 (73.33) |  |
| ≥25 | 41 (23.84) | 9 (17.31) | 32 (26.67) |  |
| Hepatitis B, n(%) |  |  |  | 0.649 |
|  No | 136 (79.07) | 40 (76.92) | 96 (80.00) |  |
|  Yes | 36 (20.93) | 12 (23.08) | 24 (20.00) |  |
| Diabetes, n(%) |  |  |  | 0.734 |
|  No | 143 (83.14) | 44 (84.62) | 99 (82.50) |  |
|  Yes | 29 (16.86) | 8 (15.38) | 21 (17.50) |  |
| Hypertension, n(%) |  |  |  | 0.373 |
|  No | 114 (66.28) | 37 (71.15) | 77 (64.17) |  |
|  Yes | 58 (33.72) | 15 (28.85) | 43 (35.83) |  |
| CA19-9, n(%) |  |  |  | 0.691 |
|  <319.6 | 112 (65.12) | 35 (67.31) | 77 (64.17) |  |
|  ≥319.6 | 60 (34.88) | 17 (32.69) | 43 (35.83) |  |
| ALB, n(%) |  |  |  | 0.118 |
|  <3.5 | 97 (56.40) | 34 (65.38) | 63 (52.50) |  |
|  ≥3.5 | 75 (43.60) | 18 (34.62) | 57 (47.50) |  |
| TBIL, n(%) |  |  |  | 0.810 |
|  <20 | 144 (83.72) | 43 (82.69) | 101 (84.17) |  |
|  ≥20 | 28 (16.28) | 9 (17.31) | 19 (15.83) |  |
| ALT, n(%) |  |  |  | 0.814 |
|  <40 | 131 (76.16) | 39 (75.00) | 92 (76.67) |  |
|  ≥40 | 41 (23.84) | 13 (25.00) | 28 (23.33) |  |
| AST, n(%) |  |  |  | 0.747 |
|  <35 | 122 (70.93) | 36 (69.23) | 86 (71.67) |  |
|  ≥35 | 50 (29.07) | 16 (30.77) | 34 (28.33) |  |
| Child-Pugh Score, n(%) |  |  |  | 0.934 |
|  A | 160 (93.02) | 49 (94.23) | 111 (92.50) |  |
|  B | 12 (6.98) | 3 (5.77) | 9 (7.50) |  |
| TNM, n(%) |  |  |  | 0.241 |
|  Ⅰ-Ⅱ | 123 (71.51) | 34 (65.38) | 89 (74.17) |  |
|  Ⅲ-Ⅳ | 49 (28.49) | 18 (34.62) | 31 (25.83) |  |
| Lymph Node Metastasis, n(%) |  |  |  | 0.482 |
|  No | 141 (81.98) | 41 (78.85) | 100 (83.33) |  |
|  Yes | 31 (18.02) | 11 (21.15) | 20 (16.67) |  |
| Microvascular Invasion, n(%) |  |  |  | 0.200 |
|  No | 142 (82.56) | 40 (76.92) | 102 (85.00) |  |
|  Yes | 30 (17.44) | 12 (23.08) | 18 (15.00) |  |
| PNI, n(%) |  |  |  | 0.668 |
|  <42.3 | 40 (23.26) | 11 (21.15) | 29 (24.17) |  |
|  ≥42.3 | 132 (76.74) | 41 (78.85) | 91 (75.83) |  |
| SII, n(%) |  |  |  | 0.682 |
| <909.9 | 126 (73.26) | 37 (71.15) | 89 (74.17) |  |
| ≥909.9 | 46 (26.74) | 15 (28.85) | 31 (25.83) |  |
| Surgical Approach, n(%) |  |  |  | 0.405 |
|  Open | 118 (68.60) | 38 (73.08) | 80 (66.67) |  |
|  Laparoscopic | 54 (31.40) | 14 (26.92) | 40 (33.33) |  |
| Tumor Size, n(%) |  |  |  | 0.374 |
|  <6.8cm | 130 (75.58) | 37 (71.15) | 93 (77.50) |  |
|  >=6.8cm | 42 (24.42) | 15 (28.85) | 27 (22.50) |  |
| Extent Of Liver Resection, n(%) |  |  |  | 0.350 |
|  Major Hepatectomy | 55 (31.98) | 14 (26.92) | 41 (34.17) |  |
|  Minor Hepatectomy | 117 (68.02) | 38 (73.08) | 79 (65.83) |  |
| POHS, n(%) |  |  |  | 0.742 |
|  <15 | 109 (63.37) | 32 (61.54) | 77 (64.17) |  |
|  >=15 | 63 (36.63) | 20 (38.46) | 43 (35.83) |  |