**Supplementary Tables**

**Supplementary Table 1**

Supplementary Table 1-1. Clinical data of patients in hepatocellular carcinoma in TCGA

|  |  |
| --- | --- |
| Subtype | Count (%) |
| Sex |  |
| Male  | 250 (67.39%) |
|  Female | 121 (35.31%) |
| Age (years) |  |
| ＜60 | 169 (45.55%) |
|  ≥60 | 202 (54.45%) |
| TNM stage |  |
| Ⅰ | 171 (46.09%) |
| Ⅱ | 86 (23.18%) |
| Ⅲ | 85 (22.91%) |
| Ⅳ | 5 (1.35%) |
| NA | 24 (6.47%) |
| Grade |  |
| G1 | 55 (14.82%) |
| G2 | 177 (47.71%) |
| G3 | 122 (32.88%) |
| G4 | 12 (3.23%) |
| NA | 5 (1.36%) |
| Risk factors |  |
| None | 91 (24.53%) |
| Yes | 112 (30.19%) |
|  NA | 51 (13.75%) |
| Family cancer history |  |
| NO | 208 (56.06%) |
| Yes  | 112 (30.19%) |
| NA | 51 (13.75%) |
| Cancer status |  |
| Tumor free | 234 (63.07%) |
| With tumor | 110 (29.65%) |
| NA | 27 (7.28%) |
| Vascular invasion |  |
| No | 206 (55.53%) |
| Yes | 108 (29.11%) |
| NA | 57 (15.36%) |
| Fibrosis Ishak score |  |
| 0-No fibrosis | 74(19.95%) |
| 1,2-Portal fibrosis | 31(8.36%) |
| 3,4-Fibrosis speta | 28(7.55%) |
| 5-Nodular and incomplete cirrhosis | 9(2.43%) |
| 6-Established cirrhosis | 70(18.86%) |
| NA | 159(42.85%) |
| Adjacent hepatic tissue inflammation |  |
| Mild | 99(26.68%) |
| Severe | 18(4.85%) |
| None | 117(31.54%) |
| NA | 137(36.93%) |

Supplementary Table 1-2. COX regression analysis of overall survival in hepatocellular carcinoma

|  |  |  |
| --- | --- | --- |
| **Subtype** | **Hazard ratio（95%CI）** | ***P* value** |
| **Univariate analysis** |  |  |
| Sex Male | 1 |  |
|  Female | 0.815(0.572-1.161) | 0.257 |
| Age |  |  |
|  <60 | 1 |  |
|  ≥60 | 1.251(0.856-1.724) | 0.275 |
| TNM stage |  |  |
|  Ⅰ+Ⅱ | 1 |  |
|  Ⅲ+Ⅳ | 2.448(1.689-3.548) | **<0.001\*\*\*** |
| Grade |  |  |
|  G1 | 1 |  |
|  G2 | 1.179(0.696-1.997) | 0.54 |
|  G3 | 1.233(0.71-2.139) | 0.457 |
|  G4 | 1.692(0.625-4.58) | 0.301 |
| Risk factors |  |  |
|  No | 1 |  |
|  Yes | 0.59(0.407-0.856) | **0.005\*\*** |
| Family cancer history |  |  |
|  No | 1 |  |
|  Yes | 1.179(0.817-1.702) | 0.379 |
| Cancer status |  |  |
|  Tumor free | 1 |  |
|  With tumor | 1.588(1.107-2.279) | **0.012\*** |
| Vascular invasion |  |  |
|  No | 1 |  |
|  Yes | 1.348(0.89-2.042) | 0.159 |
| Fibrosis Ishak score |  |  |
|  No fibrosis | 1 |  |
|  Fibrosis | 0.795(0.431-1.466) | 0.462 |
|  Cirrhosis | 0.758(0.414-1.389) | 0.371 |
| Adjacent hepatic tissue inflammation |  |  |
|  None | 1 |  |
|  Yes | 1.204(0.74-1.958) | 0.455 |
| IGF1R expression |  |  |
| <0.31 | 1 |  |
|  ≥0.31 | 1.550(1.089-2.205) | **0.015\*** |
| **Multivariate analysis** |  |  |
| TNM stage |  |  |
| Ⅰ+Ⅱ | 1 |  |
| Ⅲ+Ⅳ | 2.342(1.569-3.495) | **<0.001\*\*\*** |
| Cancer status |  |  |
| Tumor free | 1 |  |
| With tumor | 1.493(1.005-2.218) | **<0.047\*** |

**\*** *P*＜0.05, **\*\*** *P*＜0.01, **\*\*\*** *P*＜0.001.

Supplementary Table 1-3. Relationship between IGF-1R mRNA expression and clinicopathological features in hepatocellular carcinoma patients

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 　 | 　 | IGF1R | χ2 | *P* value |
| 　 | low expression | high expression |
| Age(y) | <60 | 105 | 64 | 3.774 | 0.052 |
| ≥60 | 144 | 57 |
| Sex | Female | 67 | 54 | 11.792 |  **0.001\*\*** |
| Male | 183 | 67 |
| TNM stage | Ⅰ+Ⅱ | 185 | 72 | 5.306 |  **0.021\*** |
| Ⅲ+Ⅳ | 53 | 37 |
| Grade | G1+G2 | 160 | 72 | 0.632 | 0.427 |
| G3+G4 | 87 | 47 |
| Risk factors | No | 48 | 43 | 11.864 |  **0.001\*\*** |
| Yes | 189 | 72 |
| Family cancer history | No | 142 | 66 | 1.084 | 0.298 |
| Yes | 70 | 42 |
| Cancer status | Tumor free | 162 | 72 | 0.491 | 0.484 |
| With tumor | 72 | 38 |
| Vascular invasion | No | 147 | 59 | 2.314 | 0.128 |
| Yes | 68 | 40 |
| Fibrosis Ishak score | No | 51 | 23 | 0.598 | 0.439 |
| Yes | 102 | 36 |
| Adjacent hepatic tissue inflammation | None | 79 | 38 | 0.02 | 0.889 |
| Yes | 80 | 37 |

**\*** *P*＜0.05, **\*\*** *P*＜0.01, **\*\*\*** *P*＜0.001.