|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 1. Baseline characteristics of subgroups divided by various inflammation-based scores.** | **All patient (n=1625)** | **GPS** | **P** | **mGPS** | **P** | **Hs-mGPS** | **P** | **NLR** | **P** | **PLR** | **P** | **PNI** | **P** | **SII** | **P** | **LCR**  | **P** |
| **0** | **1** | **2** | **0** | **1** | **2** | **0** | **1** | **2** | **≤5** | **>5** | **<150** | **≥150** | **≥300** |  | **≤45** | **>45** |  | **≤350** | **>350** |  | **≤6000** | **>6000** |  |
| **Age (year)** |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | 0.277 |  |  |  | <0.001 |  |  | 0.308 |  |  | <0.001 |  |  | <0.001 |
| ≤60 | 1378(84.8) | 669(41.1) | 586(36.1) | 123(7.6) |  | 723(44.5) | 532(32.7) | 123(7.6) |  | 395(24.3) | 826(50.8) | 157(9.7) |  | 1223(75.3) | 155(9.5) |  | 980(60.3) | 352(21.7) | 46 (2.8) |  | 1003(61.7) | 375(23.1) |  | 544(33.5) | 834(51.3) |  | 733(45.1) | 645 (39.7) |  |
| >60 | 247(15.2) | 156(9.6) | 76(4.7) | 15(0.9) |  | 173(10.6) | 59(3.6) | 15(0.9) |  | 103(6.3) | 116(7.1) | 28(1.7) |  | 225(13.8) | 22 (1.4) |  | 211(13.0) | 33 (2.0) | 3(0.2) |  | 172(10.6) | 75(4.6) |  | 137(8.4) | 110(6.8) |  | 172(10.6) | 75(4.6) |  |
| **Gender** |  |  |  |  | 0.145 |  |  |  | 0.131 |  |  |  | 0.141 |  |  | 0.630 |  |  |  | 0.001 |  |  | 0.123 |  |  | 0.475 |  |  | 0.311 |
| Male  | 1467 (90.3) | 734(45.2) | 609(37.5) | 124(7.6) |  | 798(49.1) | 545(33.5) | 124(7.6) |  | 439(27.0) | 861(53.0) | 167(10.3) |  | 1309(80.6) | 158 (9.7) |  | 1095(67.4) | 332(20.4) | 40(2.5) |  | 1069(65.8) | 398(24.5) |  | 619(38.1) | 848(52.2) |  | 811(49.9) | 656 (40.4) |  |
| Female | 158 (9.7) | 91(5.6) | 53(3.3) | 14(0.9) |  | 98(6.0) | 46(2.8) | 14(0.9) |  | 59(3.6) | 81(5.0) | 18(1.1) |  | 139(8.6) | 19 (1.2) |  | 96(5.9) | 53 (3.3) | 9 (0.6) |  | 106(6.5) | 52(3.2) |  | 62(3.8) | 96(5.9) |  | 94 (5.8) | 64(3.9) |  |
| **Etiology** |  |  |  |  | 0.324 |  |  |  | 0.030 |  |  |  | 0.074 |  |  | 0.807 |  |  |  | 0.001 |  |  | <0.001 |  |  | <0.001 |  |  | 0.022 |
| HBV | 1433 (88.2) | 718(44.2) | 590(36.3) | 125(7.7) |  | 781(48.1) | 527(32.4) | 125(7.7) |  | 431(26.5) | 834(51.3) | 168(10.3) |  | 1283(79.0) | 150 (9.2) |  | 1059(65.2) | 340(20.9) | 34(2.1) |  | 1021(62.8) | 412(25.4) |  | 616(37.9) | 817(50.3) |  | 786(48.4) | 647 (39.8) |  |
| HCV | 20(1.2) | 11(0.7) | 7(0.4) | 2(0.1) |  | 16(1.0) | 2(0.1) | 2(0.1) |  | 10(0.6) | 7(0.4) | 3(0.2) |  | 17(1.0) | 3 (0.2) |  | 18(1.1) | 0 (0.0) | 2(0.1) |  | 11(0.7) | 9(0.5) |  | 16(1.0) | 4(0.2) |  | 16 (1.0) | 4(0.2) |  |
| Others | 172(10.6) | 98(6.0) | 65(4.0) | 9(0.6) |  | 102(6.3) | 61(3.7) | 9(0.6) |  | 57(3.5) | 103(6.4) | 12(0.7) |  | 153(9.4) | 19 (1.2) |  | 118(7.3) | 44 (2.7) | 10(0.6) |  | 145(8.9) | 27(1.7) |  | 52(3.2) | 120(7.5) |  | 106 (6.5) | 66(4.1) |  |
| **ALBI grade** |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | <0.001 |  |  |  | <0.001 |  |  | <0.001 |  |  | 0.336 |  |  | <0.001 |
| 1 | 884(54.4) | 599(36.9) | 285(17.5) | 0(0.0) |  | 599(36.9) | 285(17.5) | 0(0.0) |  | 354(21.8) | 530(32.6) | 0(0.0) |  | 824(50.7) | 60 (3.7) |  | 682(42.0) | 184(11.3) | 18(1.1) |  | 853(52.5) | 31(1.9) |  | 380(23.4) | 50(31.0) |  | 614 (37.8)  | 270(16.6) |  |
| 2 | 741(45.6) | 226(13.9) | 377(23.2) | 138(8.5) |  | 297(18.3) | 306(18.8) | 138(8.5) |  | 144(8.9) | 412(25.4) | 185(11.4) |  | 624(38.4) | 117 (7.2) |  | 509(31.3) | 201(12.4) | 31(1.9) |  | 322(19.8) | 419(25.8) |  | 301(18.5) | 440(27.1) |  | 291 (17.9) | 450 (27.7) |  |
| **Alpha-fetoprotein level (ng/L)** |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | 0.710 |  |  |  | 0.001 |  |  | 0.365 |  |  | <0.001 |  |  | <0.001 |
| ≤200 | 719(44.2) | 404(24.9) | 263(16.2) | 52(3.2) |  | 442(27.2) | 225(13.8) | 52(3.2) |  | 261(16.1) | 380(23.4) | 78(4.8) |  | 643(39.6) | 76(4.7) |  | 559(34.4) | 142(8.7) | 18(1.1) |  | 528(32.5) | 191(11.8) |  | 346(21.3) | 373(23.0) |  | 449 (27.6) | 270 (16.6) |  |
| >200 | 906(55.8) | 421 (25.9) | 399(24.6) | 86(5.3) |  | 454(27.9) | 366(22.5) | 86(5.3) |  | 237(14.6) | 562(34.6) | 107(6.6) |  | 805(49.5) | 101(6.2) |  | 632(38.9) | 243(15.9) | 31(1.9) |  | 647(39.8) | 259(15.9) |  | 335(20.6) | 571(35.1) |  | 456 (28.1) | 450(27.7) |  |
| **Tumor size (cm)** |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | <0.001 |  |  |  | <0.001 |  |  | 0.763 |  |  | <0.001 |  |  | <0.001 |
| ≤5 | 413(25.4) | 319(19.6) | 80(4.9) | 14(0.9) |  | 354(21.8) | 45(2.8) | 14(0.9) |  | 260(16.0) | 119(7.3) | 34(2.1) |  | 394(24.2) | 19(1.2) |  | 389(23.9) | 23 (1.4) | 1(0.1) |  | 301(18.5) | 112(6.9) |  | 317(19.5) | 96(5.9) |  | 351 (21.6) | 62(3.8) |  |
| >5 | 1212(74.6) | 506(31.1) | 582(35.8) | 124(7.6) |  | 542(33.4) | 546(33.6) | 124(7.6) |  | 238(14.6) | 823(50.6) | 151(9.3) |  | 1054(64.9) | 158(9.7) |  | 802(49.4) | 362(22.3) | 48(3.0) |  | 874(53.8) | 338(20.8) |  | 364(22.4) | 848(52.5) |  | 554 (34.1) | 658 (40.5) |  |
| **Tumor number**  |  |  |  |  | 0.029 |  |  |  | 0.031 |  |  |  | 0.117 |  |  | 0.013 |  |  |  | 0.004 |  |  | 0.011 |  |  | 0.021 |  |  | 0.059 |
| ≤1 | 631(38.8) | 316(19.4) | 247(15.2) | 68(4.2) |  | 340(20.9) | 223(13.7) | 68(4.2) |  | 183(11.3) | 364(22.4) | 84(5.2) |  | 547(33.7) | 84(5.2) |  | 435(26.8) | 177(10.9) | 19(1.2) |  | 434(26.7) | 197(12.1) |  | 242(14.9) | 389(23.9) |  | 333 (20.5) | 298(18.3) |  |
| >1 | 994(61.2) | 509 (31.3) | 415(25.5) | 70(4.3) |  | 556(34.2) | 368(22.6) | 70(4.3) |  | 315(19.4) | 578(35.6) | 101(6.2) |  | 901(55.4) | 93(5.7) |  | 756(46.5) | 208(12.8) | 30(1.8) |  | 741(45.6) | 253(15.6) |  | 439(27.0) | 555(34.2) |  | 572 (35.2) | 422 (26.0) |  |
| **Macroscopic vascular invasion**  |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | 0.033 |  |  |  | 0.007 |  |  | 0.104 |  |  | <0.001 |  |  | <0.001 |
| Present | 416(25.6) | 148(9.1) | 220(13.5) | 48(3.0) |  | 158(9.7) | 210(12.9) | 48(3.0) |  | 62(3.8) | 299(18.4) | 55(3.4) |  | 359(22.1) | 57(3.5) |  | 283(17.4) | 122(7.5) | 11(0.7) |  | 288(17.7) | 128(7.9) |  | 116(7.1) | 300(18.5) |  | 160 (9.8) | 256 (15.8) |  |
| Absent | 1209(74.4) | 677(41.7) | 442(27.2) | 90(5.5) |  | 738(45.4) | 381(23.4) | 90(5.5) |  | 436(26.8) | 643(39.6) | 130(8.0) |  | 1089(67.0) | 120(7.4) |  | 908(55.9) | 263(16.2) | 38(2.3) |  | 887(54.6) | 322(19.8) |  | 565(34.8) | 644(39.6) |  | 745 (45.8) | 464(28.6) |  |
| **Extrahepatic metastasis** |  |  |  |  | <0.001 |  |  |  | <0.001  |  |  |  | <0.001 |  |  | 0.025 |  |  |  | <0.001 |  |  | 0.042 |  |  | <0.001 |  |  | <0.001 |
| Present  | 192(11.8) | 67(4.1) | 100(6.2) | 25(1.5) |  | 71(4.4) | 96(5.9) | 25(1.5) |  | 22(1.4) | 142(89.2) | 28(1.7) |  | 162(10.0) | 30(1.8) |  | 117(7.2) | 66 (4.1) | 9(0.6) |  | 127(7.8) | 65(4.0) |  | 51(3.1) | 141(8.7) |  | 69 (4.2) | 123(7.6) |  |
| Absent  | 1433(88.2) | 758 (46.6) | 562(34.6) | 113(7.0) |  | 825(50.8) | 495(30.5) | 113(7.0) |  | 476(29.3) | 800(49.2) | 157(9.7) |  | 1286(79.1) | 147(9.0) |  | 1074(66.1) | 319(19.6) | 40(2.5) |  | 1048(64.5) | 385(23.7) |  | 630(38.8) | 803(49.4) |  | 836 (51.4) | 597 (36.7) |  |
| **BCLC stage**  |  |  |  |  | <0.001 |  |  |  | <0.001 |  |  |  | <0.001 |  |  | 0.018 |  |  |  | 0.001 |  |  | 0.037 |  |  | <0.001 |  |  | <0.001 |
| A | 468(28.8) | 285(17.5) | 141(8.7) | 42(2.6) |  | 306(18.8) | 120(7.4) | 42(2.6) |  | 198(12.2) | 216(13.3) | 54(3.3) |  | 415(25.5) | 53(3.3) |  | 347(21.4) | 109(6.7) | 12(0.7) |  | 333(20.5) | 135(8.3) |  | 231(14.2) | 237(14.6) |  | 299 (18.4) | 169 (10.4) |  |
| B | 642(39.5) | 352 (21.7) | 256(15.8) | 34(2.1) |  | 390(24.0) | 218(13.4) | 34(2.1) |  | 255(13.8) | 357(22.0) | 60(3.7) |  | 588(36.2) | 54(3.3) |  | 500(30.8) | 122(7.5) | 20(1.2) |  | 486(29.9) | 156(9.6) |  | 302(18.6) | 340(20.9) |  | 405 (24.9) | 237 (14.6) |  |
| C | 515(31.7) | 188(11.6) | 265(16.3) | 62(3.8) |  | 200(12.3) | 253(15.6) | 62(3.8) |  | 75(4.6) | 369(22.7) | 71(4.4) |  | 445(27.4) | 70(4.3) |  | 344(21.2) | 154(9.5) | 17(1.0) |  | 356(21.9) | 159(9.8) |  | 148(9.1) | 367(22.6) |  | 201 (12.4) | 314 (19.3) |  |

Variables are expressed as no. (%).

Abbreviation: HBV, hepatitis B virus; HCV, hepatitis C virus; ALBI grade, Albumin-bilirubin grade; BCLC stage, Barcelona Clinic Liver Cancer stage; GPS, Glasgow Prognostic Score; mGPS, modified Glasgow Prognostic Score; Hs-mGPS, high-sensitivity modified Glasgow Prognostic Score; NLR, neutrophil-to-lymphocyte ratio; PLR, platelet-to-lymphocyte ratio; PNI, Prognostic Nutritional Index; SII, systemic immune-inflammation index; LCR, Lymphocyte-C-reactive protein ratio.