| Variables                              | RAD51AP1 Low (n = 120) | High (n = 120) | p value |
|----------------------------------------|------------------------|----------------|---------|
| Age, median (IQR)                      | 55 (46, 62.5)          | 50 (44, 59)   | 0.011   |
| Male, n (%)                            | 102 (85.0)             | 97 (80.8)     | 0.39    |
| ALT, U/L, median (IQR)                 | 38 (26, 57.5)          | 38 (26, 58.5) | 0.62    |
| AST, U/L, median (IQR)                 | 34 (25.5, 48)          | 36 (26, 55.5) | 0.39    |
| Bilirubin, mg/dl, median (IQR)         | 0.6 (0.4, 0.8)         | 0.6 (0.5, 0.8)| 0.85    |
| Albumin, g/dl, mean ± SD               | 4.04 ± 0.41            | 4.01 ± 0.36   | 0.57    |
| INR, median (IQR)                      | 1.09 (1.05, 1.17)      | 1.12 (1.06, 1.17) | 0.20 |
| Edmondson Grade, n (%)                 |                        |                | 0.037   |
| 1                                      | 15 (12.5)              | 9 (7.5)        |         |
| 2                                      | 100 (83.3)             | 96 (80.0)      |         |
| 3                                      | 5 (4.2)                | 15 (12.5)      |         |
| Etiology, n (%)                        |                        |                | 0.14    |
| HBV                                    | 83 (69.2)              | 100 (83.3)     |         |
| HBV and HCV                            | 2 (1.7)                | 1 (0.8)        |         |
| HCV                                     | 15 (12.5)              | 5 (4.2)        |         |
| Alcohol                                 | 9 (7.5)                | 5 (4.2)        |         |
| Biliary                                 | 1 (0.8)                | 1 (0.8)        |         |
| Unknown                                 | 10 (8.3)               | 8 (6.7)        |         |
| Vascular invasion, n (%)               | 53 (44.2)              | 80 (66.7)      | < 0.001 |
| Major portal vein invasion, n (%)      | 1 (0.8)                | 8 (6.7)        | 0.017   |
| Intrahepatic metastasis, n (%)         | 20 (16.7)              | 35 (29.2)      | 0.021   |
| Multicentric occurrence, n (%)         | 6 (5.0)                | 7 (5.8)        | 0.78    |
| Direct invasion of adjacent organ, n (%)| 1 (0.8)                | 4 (3.3)        | 0.18    |
| AJCC staging, n (%)                    |                        |                | 0.002   |
| 1                                      | 66 (55.0)              | 41 (34.2)      |         |
| 2                                      | 44 (36.7)              | 56 (46.7)      |         |
| 3                                      | 10 (8.3)               | 23 (19.2)      |         |
| BCLC staging, n (%)                    |                        |                | 0.004   |
| A                                      | 80 (66.7)              | 60 (50.0)      |         |
| B                                      | 39 (32.5)              | 51 (42.5)      |         |
| C                                      | 1 (0.8)                | 9 (7.5)        |         |
| AFP, ng/ml, n (%)                      |                        |                |         |
| > 200                                   | 35 (29.2)              | 58 (48.3)      | 0.002   |
| > 300                                   | 33 (27.5)              | 53 (44.2)      | 0.007   |
| > 400                                   | 29 (24.2)              | 51 (42.5)      | 0.003   |
| Tumor size > 3cm, n (%)                | 72 (60.0)              | 80 (66.7)      | 0.28    |
| Deceased, n (%)                        | 44 (36.7)              | 61 (50.8)      | 0.027   |
| OS months, median (IQR)‡               | 88.8 (58.2, 105.8)     | 65.9 (20.7, 99.9)| 0.002 |

‡, date of surgery to date of death or last follow-up.

IQR, interquartile range; ALT, alanine aminotransferase; AST, aspartate aminotransferase; INR,
international normalized ratio; HBV, hepatitis B virus; HCV, hepatitis C virus; AJCC, American Joint Committee on Cancer; BCLC, Barcelona Clinic Liver Cancer; AFP, alpha fetoprotein; OS, overall survival.