**Table S1.**  Univariate and multivariate regression analysis of prognostic factors in patients with high or low PNI score.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Risk factors | Before PSM | | | | After PSM | | | |
| Univariate regression analysis | | Multivariate regression analysis | | Univariate regression analysis | | Multivariate regression analysis | |
| HR (95% CI) | P value | HR (95% CI) | P value | HR (95% CI) | P value | HR (95% CI) | P value |
| PNI score (＜45; ≥45 ) | 0.22 (0.16 – 0.30) | ＜0.001 | 0.31 (0.21 – 0.44) | ＜0.001 | 0.35 (0.23 – 0.52) | ＜0.001 | 0.32 (0.21 – 0.49) | ＜0.001 |
| BMI (＜18.5; ≥18.5 ) | 0.43 (0.30 – 0.54) | ＜0.001 | 0.59 (0.40 – 0.87) | 0.009 | 0.58 (0.37 – 0.91) | 0.019 | 0.53 (0.33 – 0.84) | 0.007 |
| CA 125 (＜35; ≥35) | 2.41 (1.75 – 3.31) | ＜0.001 | 1.21 (0.86 – 1.71) | 0.276 | 1.47 (0.99– 2.16) | 0.052 | - | - |
| CA 19-9 (＜37; 37-200; ≥200) | 1.89 (1.54 – 2.32) | ＜0.001 | 1.58 (1.27 – 1.97) | ＜0.001 | 2.00 (1.50 –2.66) | ＜0.001 | 1.58 (1.13 – 2.21) | 0.008 |
| Tumor stage (I; II; III) | 2.94 (2.17 – 3.99) | ＜0.001 | 1.84(1.30 – 2.61) | 0.001 | 3.15 (2.13 – 4.67) | ＜0.001 | 2.34 (1.47 – 3.72) | ＜0.001 |
| R1 resection (Yes; No) | 2.02 (1.12 – 3.63) | 0.019 | 1.60 (0.87 – 2.93) | 0.133 | 1.30 (0.65 – 2.58) | 0.455 | - | - |
| LN metastasis (Yes; No) | 2.56 (1.90 – 3.45) | ＜0.001 | 0.97 (0.66 – 1.41) | 0.858 | 0.58 (0.37 – 0.89) | 0.013 | 1.43 (0.85 – 2.41) | 0.173 |

**Table S2.** Survival analysis of prognostic factors in patients with high or low PNI score.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Risk factors | Before PSM | | After PSM | |
| Mean ± SD, months | P value | Mean ± SD, months | P value |
| PNI score |  |  |  |  |
| Group 1: ＜45 | 13.34 ± 1.07 | ＜0.001 | 13.06 ± 1.04 | ＜0.001 |
| Group 2: ≥45 | 35.68 ± 2.32 | 29.60 ± 3.87 |
| Body mass index |  |  |  |  |
| Group 1: ＜18.5 | 16.15 ± 1.65 | ＜0.001 | 13.44 ± 1.82 | 0.013 |
| Group 2: ≥18.5 | 32.53 ± 2.13 | 23.53 ± 2.67 |
| Carbohydrate antigen 19-9 |  |  |  |  |
| Group 1: ＜37 | 34.29 ± 2.33 | ＜0.001 | 29.41 ± 4.09 | ＜0.001 |
| Group 2: 37 – 200 | 33.59 ± 2.93 | 23.80 ± 3.33 |
| Group 3: ＞200 | 21.47 ± 2.45 | 13.00 ± 0.87 |
| Tumor stage |  |  |  |  |
| Stage I, n (%) | 42.66 ± 4.06 | ＜0.001 | 49.87 ± 8.05 | ＜0.001 |
| Stage II, n (%) | 27.50 ± 2.15 | 17.44 ± 1.20 |
| Stage III, n (%) | 10.77 ± 0.88 | 9.83 ± 0.68 |

**Table S3.** Univariate and multivariate regression analysis of prognostic factors in patients with high or low CONUT score.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Risk factors | Before PSM | | | | After PSM | | | |
| Univariate regression analysis | | Multivariate regression analysis | | Univariate regression analysis | | Multivariate regression analysis | |
| HR (95% CI) | P value | HR (95% CI) | P value | HR (95% CI) | P value | HR (95% CI) | P value |
| CONUT score (＜3; ≥3 ) | 4.61 (3.42 – 6.22) | ＜0.001 | 3.93 (2.83 – 5.45) | ＜0.001 | 2.94 (2.02 – 4.26) | ＜0.001 | 3.28 (2.21 – 4.88) | ＜0.001 |
| BMI (＜18.5; ≥18.5 ) | 0.43 (0.30 – 0.54) | ＜0.001 | 0.65 (0.43 – 0.96) | 0.032 | 0.56 (0.34 – 0.92) | 0.023 | 0.62 (0.37– 1.03) | 0.066 |
| CA 125 (＜35; ≥35) | 2.41 (1.75 – 3.31) | ＜0.001 | 1.44 (1.03 – 2.01) | 0.034 | 1.85 (1.26 – 2.71) | 0.002 | 1.46 (0.99 – 2.16) | 0.055 |
| CA 19-9 (＜37; 37-200; ≥200) | 1.89 (1.54 – 2.32) | ＜0.001 | 1.60 (1.28 – 2.00) | ＜0.001 | 1.68 (1.30 – 2.16) | ＜0.001 | 1.55 (1.16– 2.07) | 0.003 |
| Tumor stage (I; II; III) | 2.94 (2.17 – 3.99) | ＜0.001 | 1.86 (1.31 – 2.65) | 0.001 | 2.72 (1.78 – 4.16) | ＜0.001 | 2.08(1.30 – 3.33) | 0.002 |
| R1 resection (Yes; No) | 2.02 (1.12 – 3.63) | 0.019 | 1.57 (0.86 – 2.90) | 0.144 | 2.98 (1.29 – 6.87) | 0.010 | 1.98 (0.85 – 4.65) | 0.115 |
| LN metastasis (Yes; No) | 2.56 (1.90 – 3.45) | ＜0.001 | 0.90 (0.62 – 1.31) | 0.589 | 0.46 (0.31– 0.68) | ＜0.001 | 1.00 (0.62 – 1.60) | 0.984 |

**Table S4.** Survival analysis of prognostic factors in patients with high or low CONUT score.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Risk factors | Before PSM | | After PSM | |
| Mean ± SD, months | P value | Mean ± SD, months | P value |
| CONUT score |  |  |  |  |
| Group 1: ＜3 | 36.84 ± 2.37 | ＜0.001 | 29.31 ± 2.46 | ＜0.001 |
| Group 2: ≥3 | 15.63 ± 1.96 | 16.52 ± 2.19 |
| Body mass index |  |  |  |  |
| Group 1: ＜18.5 | 16.15 ± 1.65 | ＜0.001 | - | - |
| Group 2: ≥18.5 | 32.53 ± 2.13 | - |
| Carbohydrate antigen 125 |  |  |  |  |
| Group 1: ＜35 | 34.36 ± 2.37 | ＜0.001 | - | - |
| Group 2: ≥35 | 17.38 ± 1.15 |  | - |  |
| Carbohydrate antigen 19-9 |  |  |  |  |
| Group 1: ＜37 | 34.29 ± 2.33 | ＜0.001 | 26.75 ± 2.30 | ＜0.001 |
| Group 2: 37 – 200 | 33.59 ± 2.93 | 25.16 ± 2.75 |
| Group 3: ＞200 | 21.47 ± 2.45 | 17.92 ± 2.34 |
| Tumor stage |  |  |  |  |
| Stage I, n (%) | 42.66 ± 4.06 | ＜0.001 | 35.93 ± 5.62 | ＜0.001 |
| Stage II, n (%) | 27.50 ± 2.15 | 21.63 ± 1.88 |
| Stage III, n (%) | 10.77 ± 0.88 | 10.20 ± 0.76 |