Supplementary material

Supplementary Table 1. Demographic and clinical characteristics in low risk patients by BMI group.

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| --- | --- | --- | --- | --- |
| Factor | Total(N = 776) | BMI <40 kg/m2 (N = 523) | BMI ≥40 kg/m2 (N = 253) | *p*-value |
| Age at diagnosis (yr) | 60.2 ± 10.6 | 61.4 ± 10.9 | 57.5 ± 9.5 | <0.001a |
| Race |
|  | White | 708 (91.2) | 483 (92.4) | 225 (88.9) | 0.003d |
| Black | 49 (6.3) | 23 (4.4) | 26 (10.3) |
| Asian | 6 (0.77) | 6 (1.10) | 0 (0.00) |
| Other/Unknown | 13 (1.70) | 11 (2.10) | 2 (0.79) |
| Primary payer at diagnosis |
|  | No insurance/Unknown | 114 (14.7) | 67 (12.8) | 47 (18.6) | 0.045c |
| Medicare/Medicaid/Veterans affairs | 230 (29.6) | 160 (30.6) | 70 (27.7) |
| Private insurance | 378 (48.7) | 253 (48.4) | 125 (49.4) |
| Insured, NOS | 54 (7.0) | 43 (8.2) | 11 (4.3) |
| Histology |
|  | Endometroid | 776 (100.0) | 523 (100.0) | 253 (100.0) |  |
| Grade of differentiation |
|  | Well differentiated | 552 (71.1) | 361 (69.0) | 191 (75.5) | 0.062c |
| Moderately differentiated | 224 (28.9) | 162 (31.0) | 62 (24.5) |
| FIGO stage |
|  | I | 739 (95.2) | 502 (96.0) | 237 (93.7) | 0.160c |
| II | 37 (4.8) | 21 (4.0) | 16 (6.3) |
| FIGO stage |
|  | I/II | 776 (100.0) | 523 (100.0) | 253 (100.0) |  |
| Myometrial invasion |
|  | <50% | 776 (100.0) | 523 (100.0) | 253 (100.0) |  |
| LVSI |
|  | No | 436 (56.2) | 285 (54.5) | 151 (59.7) | 0.096c |
| Yes | 62 (8.0) | 49 (9.4) | 13 (5.1) |
| Unknown | 278 (35.8) | 189 (36.1) | 89 (35.2) |
| Tumor size |
|  | <2 cm | 187 (24.1) | 129 (24.7) | 58 (22.9) | 0.670c |
| ≥2 cm | 425 (54.8) | 288 (55.1) | 137 (54.2) |
| Unknown | 164 (21.1) | 106 (20.3) | 58 (22.9) |

Statistics presented as Mean ± SD, N (column %). *p*-values: aSatterthwaite *t*-test, cPearson’s chi-square test, dFisher’s Exact test. BMI: body mass index; NOS: not otherwise specified; FIGO: Federation of Gynecology and Obstetrics.

Supplementary Table 2. Demographic and clinical characteristics in high risk patients by BMI group.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Factor | Total(N = 1002) | BMI <40 kg/m2(N = 808) | BMI ≥40 kg/m2(N = 194) | *p*-value |
| Age at diagnosis (yr) | 65.0 ± 11.0 | 66.0 ± 10.9 | 60.6 ± 10.3 | <0.001a |
| Race |
|  | White | 869 (86.7) | 697 (86.3) | 172 (88.7) | 0.870d |
| Black | 116 (11.6) | 95 (11.8) | 21 (10.8) |
| Asian | 5 (0.50) | 5 (0.62) | 0 (0.00) |
| Other/Unknown | 10 (1.00) | 9 (1.10) | 1 (0.52) |
| American Indian | 2 (0.20) | 2 (0.25) | 0 (0.00) |
| Primary payer at diagnosis |
|  | No insurance/Unknown | 146 (14.6) | 121 (15.0) | 25 (12.9) | 0.076c |
| Medicare/Medicaid/Veterans affairs | 408 (40.7) | 341 (42.2) | 67 (34.5) |
| Private insurance | 389 (38.8) | 303 (37.5) | 86 (44.3) |
| Insured, NOS | 59 (5.9) | 43 (5.3) | 16 (8.2) |
| Histology |
|  | Endometroid | 461 (46.0) | 367 (45.4) | 94 (48.5) | 0.470c |
| Non-endometrioid | 465 (46.4) | 376 (46.5) | 89 (45.9) |
| Unknown | 76 (7.6) | 65 (8.0) | 11 (5.7) |
| Grade of differentiation |
|  | Well differentiated | 187 (18.7) | 143 (17.7) | 44 (22.7) | 0.160c |
| Moderately differentiated | 242 (24.2) | 203 (25.1) | 39 (20.1) |
| Poorly differentiated | 573 (57.2) | 462 (57.2) | 111 (57.2) |
| FIGO stage |
|  | I | 491 (49.0) | 382 (47.3) | 109 (56.2) | 0.100c |
| II | 78 (7.8) | 69 (8.5) | 9 (4.6) |
| III | 277 (27.6) | 225 (27.8) | 52 (26.8) |
| IV | 107 (10.7) | 89 (11.0) | 18 (9.3) |
| Unknown | 49 (4.9) | 43 (5.3) | 6 (3.1) |
| FIGO stage |
|  | I/II | 569 (56.8) | 451 (55.8) | 118 (60.8) | 0.270c |
| III/IV | 384 (38.3) | 314 (38.9) | 70 (36.1) |
| UNK | 49 (4.9) | 43 (5.3) | 6 (3.1) |
| Myometrial invasion |
|  | <50% | 186 (18.6) | 144 (17.8) | 42 (21.6) | 0.390c |
| 50+% | 215 (21.5) | 178 (22.0) | 37 (19.1) |
| Unknown | 601 (60.0) | 486 (60.1) | 115 (59.3) |
| LVSI |
|  | No | 302 (30.1) | 236 (29.2) | 66 (34.0) | 0.420c |
| Yes | 288 (28.7) | 236 (29.2) | 52 (26.8) |
| Unknown | 412 (41.1) | 336 (41.6) | 76 (39.2) |
| Tumor size |
|  | <2 cm | 109 (10.9) | 90 (11.1) | 19 (9.8) | 0.860c |
| ≥2 cm | 722 (72.1) | 581 (71.9) | 141 (72.7) |
| Unknown | 171 (17.1) | 137 (17.0) | 34 (17.5) |

Statistics presented as Mean ± SD, N (column %). *p*-values: a*t*-test, cPearson’s chi-square test, dFisher’s Exact test. BMI: body mass index; NOS: not otherwise specified; FIGO: Federation of Gynecology and Obstetrics; LVSI: lymphovascular space invasion.

Supplementary Table 3. Propensity-weighted ATT\* analysis of survival outcomes for BMI < and ≥40 kg/m2.

|  |  |  |
| --- | --- | --- |
| Survival outcome | Hazard ratio(95% CI) | *p*-value |
| PFS | 0.89 (0.60–1.30) | 0.54 |
| OS | 0.74 (0.49–1.12) | 0.15 |

ATT**\***Average effect of the treatment, or effect from those is in group BMI ≥40 kg/m2.The ATT weights were generated by propensity model included demographics and treatment variables, then used in the weighted univariate analyses of PFS and OS. Variables included for the propensity model are showed in Table 1 and **Supplementary Table 3** for propensity-weighting Love Plot. CI: confidence interval; PFS: progression free survival; OS: overall survival.