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| **Supplementary Table 1.** Summary of the differences in clinical practice patterns between the US institution and Japanese institutions |
|  |  |
| USinstitution | JPinstitutions |
| Patient characteristics |
| Greater BMI | More baseline comorbidities |
| Higher ASA |  |
| Perioperative factors |
| Greater use of neoadjuvant chemo therapy | Longer hospital stay |
| Higher surgical volume | Use of cutaneous ureterostomy |
| Higher readmission rate | Higher rate of high grade ileus |
| Higherrate of thromboembolic complications |  |
| DVT prophylaxis(subcutaneous heparin) |  |

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| **Supplementary Table 2.** Comparison of transfusion in the US institution and Japanese institutions |
| 　 | 　 | US institution | (%) | Japanese institutions | (%) | p value |
| Any Transfusion (including autologous and allogenic transfusion) | Yes | 291 | 20.4  | 626 | 77.0  | <0.001 |
|  | No | 1136 | 79.6  | 187 | 23.0  |  |
|  |  |  |  |  |  |  |
| Allogenic transfusion only | Yes | 291 | 20.4  | 359 | 44.2 | <0.001 |
|  | No | 1136 | 79.6  | 454 | 55.8 |  |
|  |  |  |  |  |  |  |
| Autologous transfusion only | Yes | 0 | 0.0  | 200 | 24.6 | <0.001 |
|  | No | 1427 | 100.0  | 613 | 75.4 |  |
|  |  |  |  |  |  |  |
| Both transfusions (autologous and allogenic transfusion) | Yes | 0 | 0.0  | 67 | 8.2  | 0.001 |
| 　 | No | 1427 | 100.0  | 746 | 91.8  |  |

**Supplementary Table 3.**Uni- and multivariable analyses of variables potentially involved in the risk of 90 day mortality (BMI as a binary variable)

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Univariable analysis |  | Multivariable analysis |
|  | Odds ratio (95% CI) | p value |  | Odds ratio (95% CI) | p value |
| Sex (referent: Female) | 0.99 (0.57 - 1.85) | 0.990 |  |  |  |
| Age yr, (continuous) | 1.03 (1.00 - 1.06) | **0.020** |  | 1.03 (1.01 - 1.06) | **0.018** |
| BMI, ≧30 kg/m2 (referent<30) | 2.23 (1.33 - 3.67) | **0.003** |  | 2.67 (1.51 - 4.68) | **<0.001** |
| ASA score III-IV (referent: I-II) | 1.88 (1.14 - 3.09) | **0.013** |  |  |  |
| Number of comorbidities, 2-5 (referent: 0-1) | 1.64 (0.99 - 2.69) | 0.054 |  |  |  |
| Pathologic stage ≧T2 (referent: ≦T1) | 2.18 (1.28 - 3.86) | **0.004** |  |  |  |
| Pathologic N stage, pN+ (referent: pN0) | 2.84 (1.63 - 4.87) | **<0.001** |  | 3.12 (1.75 - 5.47) | **<0.001** |
| Neoadjuvant chemotherapy (referent: non) | 0.98 (0.52 - 1.73) | 0.940 |  |  |  |
| Surgical approach (referent: robotic)  | 1.59 (0.58 - 6.56) | 0.410 |  |  |  |
| Form of urinary diversion  |  | 0.200 |  |  |  |
|  Continent | Referent |  |  |  |  |
|  No diversion | 4.55 (0.24 - 25.95) | 0.240 |  |  |  |
|  Cutaneous ureterostomy | 2.05 (0.77 - 5.00) | 0.150 |  |  |  |
|  Ileal conduit | 1.70 (0.95 - 3.24) | 0.074 |  |  |  |
| EBL, 100mL interval | 1.02 (1.01 - 1.03) | **0.001** |  | 1.02 (1.00 - 1.03) | **0.012** |
| Postoperative hospital stay, 10day interval | 0.96 (0.85 - 1.05) | 0.380 |  |  |  |
| US institution or Japanese institutions (referent: Japanese institutions) | 1.66 (0.97 - 2.99) | 0.064 |  |  |  |
| Major complication, (referent: non) | 3.5 (2.1 - 5.75) | **<0.001** |  | 4.62 (2.66 - 8.03) | **<0.001** |

**Supplementary Table 4.** Uni- and multivariable analyses of variables potentially involved in the risk of 90 day mortality (BMI as a binary variable, MVA using variables p<0.2 in UVA)

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Univariable analysis |  | Multivariable analysis |
|  | Odds ratio (95% CI) | p value |  | Odds ratio (95% CI) | p value |
| Sex (referent: Female) | 0.99 (0.57 - 1.85) | 0.990 |  |  |  |
| Age yr, (continuous) | 1.03 (1.00 - 1.06) | **0.020** |  | 1.03 (1.00 - 1.06) | **0.036**  |
| BMI, ≧30 kg/m2 (referent<30) | 2.23 (1.33 - 3.67) | **0.003** |  | 2.09 (1.10– 4.00) | **0.025**  |
| ASA score III-IV (referent: I-II) | 1.88 (1.14 - 3.09) | **0.013** |  | 1.05 (0.55 - 2.01) | 0.893  |
| Number of comorbidities, 2-5 (referent: 0-1) | 1.64 (0.99 - 2.69) | 0.054 |  | 1.32 (0.73 - 2.39) | 0.356  |
| Pathologic stage ≧T2 (referent: ≦T1) | 2.18 (1.28 - 3.86) | **0.004** |  | 1.40 (0.73 - 2.73) | 0.313  |
| Pathologic N stage, pN+ (referent: pN0) | 2.84 (1.63 - 4.87) | **<0.001** |  | 2.74 (1.47 - 5.09) | **0.002**  |
| Neoadjuvant chemotherapy (referent: non) | 0.98 (0.52 - 1.73) | 0.940 |  |  |  |
| Surgical approach (referent: robotic)  | 1.59 (0.58 - 6.56) | 0.410 |  |  |  |
| Form of urinary diversion  |  | 0.200 |  |  |  |
|  Continent | Referent |  |  |  |  |
|  No diversion | 4.55 (0.24 - 25.95) | 0.240 |  |  |  |
|  Cutaneous ureterostomy | 2.05 (0.77 - 5.00) | 0.150 |  |  |  |
|  Ileal conduit | 1.70 (0.95 - 3.24) | 0.074 |  |  |  |
| EBL, 100mL interval | 1.02 (1.01 - 1.03) | **0.001** |  | 1.02 (1.01 - 1.04) | **0.006**  |
| Postoperative hospital stay, 10day interval | 0.96 (0.85 - 1.05) | 0.380 |  |  |  |
| US institution or Japanese institutions (referent: Japanese institutions) | 1.66 (0.97 - 2.99) | 0.064 |  | 1.82 (0.81 - 4.23) | 0.147  |
| Major complication, (referent: non) | 3.5 (2.1 - 5.75) | **<0.001** |  | 4.54 (2.58 - 8.01) | **<0.001** |

**Supplementary Table 5.** Uni- and multivariable analyses of variables potentially involved in the risk of 90-day major morbidity (BMI as a binary variable, MVA using variables p<0.2 in UVA)

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Univariable analysis | 　 | Multivariable analysis |
| 　 | Odds ratio (95% CI) | p value | 　 | Odds ratio (95% CI) | p value |
| Sex (referent: Female) | 1.28 (0.98 - 1.68) | 0.068 |  | 1.29 (0.97 - 1.72) | 0.078  |
| Age yr, (continuous) | 1.01 (1.00 - 1.02) | **0.019** |  | 1.00 (0.99 - 1.01) | 0.984  |
| BMI, ≧30 kg/m2 (referent<30) | 1.29 (1.01 – 1.65) | **0.040** |  | 1.66 (1.24 - 2.21) | **0.001**  |
| ASA score III-IV (referent: I-II) | 1.18 (0.94 - 1.48) | 0.157 |  | 1.37 (1.03 - 1.82) | **0.033**  |
| Number of comorbidities, 2-5 (referent: 0-1) | 1.74 (1.39 - 2.16) | **<0.001** |  | 1.35 (1.05 - 1.72) | **0.017**  |
| Pathologic stage ≧T2 (referent: ≦T1) | 1.16 (0.93 - 1.44) | 0.191 |  | 1.01 (0.80 - 1.28) | 0.935  |
| Pathologic N stage, pN+ (referent: pN0) | 1.00 (0.75 - 1.33) | 0.983 |  |  |  |
| Neoadjuvant chemotherapy (referent: non) | 0.73 (0.55 - 0.95) | **0.021** |  | 0.86 (0.63 - 1.17) | 0.342  |
| Surgical approach (referent: robotic) | 0.99 (0.66 - 1.53) | 0.952 |  |  |  |
| Form of urinary diversion |  | **<0.001** |  |  | **0.001**  |
|  Continent | Referent |  |  | Referent |  |
|  No diversion | 1.29 (0.20 – 4.98) | 0.753 |  | 1.27 (0.18 - 5.47) | 0.774  |
|  Cutaneous ureterostomy | 1.41 (0.89 - 2.17) | 0.141 |  | 0.84 (0.48 - 1.43) | 0.518  |
|  Ileal conduit | 1.73 (1.35 - 2.23) | **<0.001** |  | 1.59 (1.19 - 2.12) | **0.001**  |
| EBL, 100mL interval | 1.02 (1.01 - 1.03) | **<0.001** |  | 1.02 (1.01 - 1.03) | **0.001**  |
| US institution or Japanese institutions (referent: Japanese institutions) | 0.61 (0.49 - 0.75) | **<0.001** |  | 0.52 (0.37 - 0.72) | **<0.001** |