**Supplemental Digital Content Table 1**

**Baseline demographic and clinical characteristics of patients with rectal cancer**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | **TME with pIONM** | | **TME without pIONM** | | *P* |
| (n=82) | | (n=89) | |
| Age, years, mean (SD) | | 61.0 | (11.4) | 63.7 | (9.7) | 0.108 |
| ASA classification, n (%) | |  | |  | |  |
|  | I | 6 | (7) | 7 | (8) |  |
|  | II | 49 | (60) | 53 | (60) |  |
|  | III | 25 | (30) | 26 | (30) |  |
|  | IV | 2 | (2) | 2 | (2) |  |
|  | Missing data, n | 0 |  | 1 | (1) | 0.998 |
| Sex, n (%) | |  | |  | |  |
|  | Male | 49 | (60) | 57 | (64) |  |
|  | Female | 33 | (40) | 32 | (36) | 0.564 |
| BMI, kg/m2, mean (SD) | | 26.1 | (4.9) | 26.0 | (4.5) | 0.888 |
| Height of tumor, cm from anocutaneus line, mean (SD) | | 7.7 | (2.8) | 7.4 | (3.1) | 0.365 |
| Ventral rectal quadrant involvement, (9 to 3 o’clock in lithotomy position), n (%) | | 42 | (51) | 40 | (45) | 0.592 |
| Neoadjuvant therapy, n (%) | | 50 | (61) | 56 | (63) |  |
|  | Radiochemotherapy, n | 42 |  | 43 |  |  |
|  | Radiotherapy, n | 3 |  | 4 |  |  |
|  | Chemotherapy, n | 4 |  | 8 |  |  |
|  | Unknown combination, n | 1 |  | 1 |  | 0.564 |
| Adjuvant therapy, n (%) | | 11 | (13) | 11 | (12) |  |
|  | Radiochemotherapy, n | 3 |  | 4 |  |  |
|  | Chemotherapy, n | 8 |  | 7 |  | 0.647 |
| Anesthesia, n (%) | |  | |  | |  |
|  | TIVA | 64 | (78) | 55 | (62) |  |
|  | Inhalation anesthesia | 17 | (21) | 33 | (37) |  |
|  | Both | 1 | (1) | 1 | (1) | 0.063 |

**Table 1 continued on next page**

**Supplemental Digital Content Table 1 (continued)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | | **TME with pIONM** | | **TME without pIONM** | | *P* |
| (n=82) | | (n=89) | |
| Surgery, n (%) | | |  | |  | |  |
|  | Minimally invasive surgery | | 69 | (84) | 76 | (85) |  |
|  | | laparoscopic | 66 | (80) | 71 | (80) |  |
|  | | robotic | 3 | (4) | 5 | (6) |  |
|  | Open | | 10 | (12) | 10 | (11) |  |
|  | Converted to open | | 3 | (4) | 3 | (3) | 0.974 |
| Dissection technique, n (%)\* | | |  | |  | |  |
|  | Scissors | | 10 | (12) | 4 | (4) |  |
|  | Bipolar scissors | | 11 | (13) | 5 | (6) |  |
|  | Monopolar diathermy | | 15 | (18) | 28 | (31) |  |
|  | Ultrasound scalpels | | 15 | (18) | 20 | (22) |  |
|  | Radiofrequency scalpels | | 54 | (66) | 55 | (62) |  |
| Anastomosis, n (%) | | | 77 | (94) | 78 | (88) | 0.160 |
|  | End-to-End anastomosis | | 27 | (35) | 24 | (31) |  |
|  | Side-to-End anastomosis | | 41 | (53) | 47 | (60) |  |
|  | J-Pouch anastomosis | | 9 | (12) | 7 | (9) |  |
|  | None, Hartmann/Extirpation | | 1 | / 4 | 7 | / 4 | 0.661 |
| Height of anastomosis, cm from anocutaneus line, mean (SD) | | | 3.6 | (1.1) | 3.5 | (1.5) | 0.602 |
|  | Missing data, n | | 4 |  | 6 |  |  |
| Stoma formation (protective), n | | |  |  |  |  |  |
|  | Ileostomy | | 72 |  | 74 |  |  |
|  | Colostomy | | 3 |  | 1 |  |  |
|  | None | | 2 |  | 2 |  |  |
|  | Missing data | | 0 |  | 1 |  | 0.884 |
| Duration of surgery, min, mean (SD) | | | 319 | (104) | 295 | (92) | 0.104 |

**Table 1 continued on next page**

**Supplemental Digital Content Table 1 (continued)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | **TME with pIONM** | | **TME without pIONM** | | | *P* |
| (n=82) | | (n=89) | | |
| Loss of blood, mL, mean (SD) | | 290 | (297) | 290 | | (376) | 0.998 |
| Excessive blood loss >1000 mL, n | | 5 |  | 5 | |  | 1.000 |
| (y)pT category, n | |  | |  | | |  |
|  | 0 | 6 |  | 10 | |  |  |
|  | 1 | 15 |  | 14 | |  |  |
|  | 2 | 25 |  | 27 | |  |  |
|  | 3 | 33 |  | 32 | |  |  |
|  | 4 | 2 |  | 6 | |  |  |
|  | Missing data | 1 |  | 0 | |  | 0.798 |
| (y)pN category, n | |  | |  | | |  |
|  | 0 | 50 |  | 62 | |  |  |
|  | 1 | 17 |  | 17 | |  |  |
|  | 2 | 13 |  | 10 | |  |  |
|  | Missing data | 2 |  | 0 | |  | 0.471 |
| TME specimen quality, n (%) | |  |  |  | |  |  |
|  | Complete | 63 | (79) | 73 | | (83) | 0.499 |
|  | Nearly complete | 16 | (20) | 15 | | (17) |  |
|  | Incomplete | 1 | (1) | 0 | |  |  |
|  | Missing data, n | 2 |  | 1 | |  |  |
| Lymph node yield, n, mean (SD) | | 18 | (9) | 19 | | (10) | 0.546 |
|  | Missing data, n | 0 |  | 1 | |  |  |
| DRM, mm, mean (SD) | | 31 | (53) | 32 | | (26) | 0.916 |
|  | Missing data, n | 6 |  | 8 | |  |  |
| CRM, n (%) | |  | |  | | |  |
|  | Direct (0 mm) | 0 |  | 2 | (2) | |  |
|  | Positive (>0 mm, ≤1 mm) | 1 | (1) | 6 | (7) | |  |
|  | Negative (>1 mm) | 79 | (96) | 81 | (91) | |  |
|  | Missing data, n | 2 |  | 0 |  | | 0.077 |
| Intraoperative tumor perforation, n (%) | | 1 | (1) | 0 |  | | 0.269 |

TME: total mesorectal excision; pIONM: pelvic intraoperative neuromonitoring; SD: standard deviation;   
n: number; ASA: American Society of Anesthesiologists; BMI: body mass index; TIVA: total intravenous anesthesia; DRM: distal resection margin; CRM: circumferential resection margin.

\* Multiple responses were allowed