Supplementary Table 1. Patient characteristics and univariate analysis for other complications.

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|   |  | **Other complications** |  |
|   | Totaln = 716 (%) | Yesn = 94 (13.1) | Non = 622 (86.9) | P-value |
| **Preoperative variables** |  |  |  |  |
| Age, years, mean ± SD | 73.6 ± 6.0 | 75.8 ± 6.5 | 73.3 ± 5.9 | <0.0011 |
| Male, n (%) | 352 (49.2) | 48 (51.1) | 304 (48.9) | 0.7762 |
| Baseline living situation, n (%), n = 649 |  |  |  |  |
| Independent  | 620 (95.5) | 81 (87.1) | 539 (96.9) |  |
| Nursing Home / Facility | 29 (4.5) | 12 (12.9) | 17 (3.1) | <0.0013 |
| Marital status, n (%), n = 706 |  |  |  |  |
| Married / Partner | 491 (69.5) | 63 (67.7) | 428 (69.8) |  |
| Other | 215 (30.5) | 30 (32.3) | 185 (30.2) | 0.7762 |
| Body mass index, Kg/m2, mean ± SD, n = 707 | 29.0 ± 5.5 | 28.8 ± 6.6 | 29.0 ± 5.4 | 0.8411 |
| ASA physical status, n (%) |  |  |  |  |
| < 3 | 243 (33.9) | 18 (19.2) | 225 (36.2) |  |
| ≥ 3 | 473 (66.1) | 76 (80.8) | 397 (63.8) | 0.0022 |
| Metabolic equivalents of task, n (%), n = 612 |  |  |  |  |
| < 4 | 169 (27.6) | 28 (40.6) | 141 (26.0) |  |
| ≥ 4 | 443 (72.4) | 41 (59.4) | 402 (74.0) | 0.0162 |
| Depression, n (%), n = 702 |  |  |  |  |
| No | 462 (65.8) | 60 (65.2) | 402 (65.9) |  |
| Yes | 240 (34.2) | 32 (34.8) | 208 (34.1) | 0.9912 |
| Anxiety, n (%), n = 704 |  |  |  |  |
| No | 513 (72.9) | 67 (72.8) | 446 (72.9) |  |
| Yes | 191 (27.1) | 25 (27.2) | 166 (27.1) | 1.0002 |
| Total number of medicationsmedian [25th-75th], n = 713 | 7 [5-11] | 7 [4-11] | 7 [5-11] | 0.8054 |
| Preoperative opioid use, n (%), n = 713 |  |  |  |  |
| No | 450 (63.1) | 62 (66.0) | 388 (62.7) |  |
| Yes | 263 (36.9) | 32 (34.0) | 231 (37.3) | 0.6182 |
| Number of past previous surgeriesmedian [25th-75th], n = 665 | 4 [2-6] | 4 [3-5] | 4 [2-6] | 0.7124 |
| Case classification, n (%), n = 711 |  |  |  |  |
| Elective | 655 (92.1) | 66 (73.3) | 589 (94.9) |  |
| Non-elective | 56 (7.9) | 24 (26.7) | 32 (5.2) | <0.0012 |
| **Intraoperative variables** |  |  |  |  |
| Invasiveness \*, n (%) |  |  |  |  |
| Tier 1 and 2 | 255 (35.6) | 20 (21.3) | 235 (37.8) |  |
| Tier 3 and 4 | 461 (64.4) | 74 (78.7) | 387 (62.2) | 0.0032 |
| Type of anesthesia, n (%) |  |  |  |  |
| TIVA | 98 (13.7) | 15 (16.0) | 83 (13.3) |  |
| TIVA + volatile | 285 (39.8) | 44 (46.8) | 241 (38.8) |  |
| Volatile | 333 (46.5) | 35 (37.2) | 298 (47.9) | 0.1542 |
| BIS monitoring, n (%) |  |  |  |  |
| No | 273 (38.1) | 30 (31.9) | 243 (39.1) |  |
| Yes | 443 (61.9) | 64 (68.1) | 379 (60.9) | 0.2242 |
| Estimated blood loss, n (%), n = 693 |  |  |  |  |
| < 500 ml | 600 (86.6) | 71 (77.2) | 529 (88.0) |  |
| 501-999 ml | 45 (6.5) | 6 (6.5) | 39 (6.5) |  |
| > 1000 ml | 48 (6.9) | 15 (16.3) | 33 (5.5) | <0.0012 |
| Transfusion of blood products |  |  |  |  |
| No | 659 (92.0) | 73 (77.7) | 586 (94.2) |  |
| Yes | 57 (8.0) | 21 (22.3) | 36 (5.8) | <0.0012 |
| Length of surgery, min, median [25th-75th] | 129.0 [97.0-187.2] | 144.0 [97.3-229.3] | 128.5 [97.0-183.0] | 0.1314 |
| Intraoperative MEA, median [25th-75th] | 15.6 [12.4-24.0] | 15.5 [12.4-24.0] | 15.6 [12.4-24.0] | 0.9304 |
| **Postoperative variables** |  |  |  |  |
| Mean pain score on postoperative day 1median [25th-75th], 697 | 4.6 [3.3-6.0] | 4.7 [3.4-6.0] | 4.6 [3.3-6.0] | 0.9654 |
| MEA on postoperative day 1, median [25th-75th] | 22.2 [12.0-33.4] | 22.8 [12.2-34.3] | 22.0 [12.0-33.2] | 0.7542 |

SD: Standard deviation, ASA: American Society of Anesthesiologists physical status, TIVA: Total Intravenous Anesthesia, BIS: Bispectral Index, MEA: morphine equivalents amount

\*Invasiveness: Tier 1, microdiscectomy, lumbar laminectomy or anterior cervical procedures, minimally invasive fusions; Tier 2, lumbar fusion, trauma, or posterior cervical fusion procedures, tumor, infection, deformity, or combined anterior and posterior cervical procedures.

1 T-tests were used.

2 Chi-square tests were used

3 Fisher’s exact tests were used

4 Wilcoxon rank sum tests were used