**Supplemental Tables**

For: Hyun-Jung Shin, Sun Woo Nam, Heeyeon Kim et al. Postoperative delirium following dexmedetomidine versus propofol sedation in healthy older adults undergoing orthopedic lower limb surgery with spinal anesthesia: A randomized controlled trial

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**Table S1. Characteristics of patients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Intention-to-Treat | |  | Per-Protocol | |
|  | Propofol  (n = 366) | Dexmedetomidine  (n = 366) |  | Propofol  (n = 341) | Dexmedetomidine  (n = 342) |
| Age (year) | 71 (67‒75) | 72 (68‒76) |  | 71 (67‒76) | 72 (68‒76) |
| Sex |  |  |  |  |  |
| Male | 77 (21%) | 78 (21%) |  | 77 (23%) | 70 (21%) |
| Female | 289 (79%) | 288 (79%) |  | 264 (77%) | 272 (79%) |
| Weight (kg) | 63 (56‒69) | 61 (56‒69) |  | 63 (56‒69) | 61 (56‒69) |
| Height (cm) | 154 (150‒159) | 153 (149‒159) |  | 154 (150‒159) | 153 (149‒159) |
| ASA classification |  |  |  |  |  |
| 1 | 66 (18%) | 52 (14%) |  | 60 (18%) | 47 (14%) |
| 2 | 300 (82%) | 314 (86%) |  | 281 (82%) | 295 (86%) |
| Underlying disease |  |  |  |  |  |
| Hypertension | 223 (61%) | 232 (64%) |  | 205 (60%) | 215 (63%) |
| Diabetes mellitus | 77 (21%) | 101 (28%) |  | 70 (21%) | 92 (27%) |
| Chronic kidney disease | 7 (1.9%) | 8 (2.2%) |  | 5 (1.5%) | 6 (1.8%) |
| Chronic liver disease | 3 (0.8%) | 4 (1.1%) |  | 3 (0.9%) | 2 (0.6%) |
| Chronic pulmonary disease | 8 (2.2%) | 2 (0.5%) |  | 8 (2.3%) | 2 (0.6%) |
| Rheumatoid arthritis | 4 (1.1%) | 13 (3.6%) |  | 4 (1.2%) | 10 (2.9%) |

Data expressed as median (interquartile range), or n (%).

ASA, American Society of Anesthesiologists

**Table S2. Perioperative surgical and anesthetic variables**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Intention-to-Treat | |  |  | Per-Protocol | |  |
|  | Propofol  (n = 366) | Dexmedetomidine  (n = 366) | P Value |  | Propofol  (n = 341) | Dexmedetomidine  (n = 342) | P Value |
| Type of surgery |  |  |  |  |  |  |  |
| Hip and femur | 92 (25%) | 89 (24%) | 0.667 |  | 85 (25%) | 76 (22%) | 0.418 |
| Knee and tibia/fibula | 248 (68%) | 247 (68%) | 0.937 |  | 231 (68%) | 238 (70%) | 0.621 |
| Ankle and foot | 26 (7%) | 30 (8%) | 0.472 |  | 25 (7%) | 28 (8%) | 0.775 |
| Surgery time (min) | 85 (75‒105) | 85 (75‒105) | 0.244 |  | 85 (75‒105) | 85 (75‒105) | 0.402 |
| Anesthesia time (mine) | 125 (115‒150) | 130 (115‒155) | 0.413 |  | 125 (115‒150) | 130 (115‒155) | 0.668 |
| Estimated blood loss (mL) | 50 (50‒250) | 50 (50‒200) | 0.336 |  | 50 (50‒250) | 50 (50‒200) | 0.222 |
| Crystalloid (mL) | 450 (300‒600) | 400 (300‒550) | 0.258 |  | 450 (300‒600) | 400 (300‒550) | 0.173 |
| Colloid (mL) | 0 (0‒0) | 0 (0‒100) | 0.651 |  | 0 (0‒50) | 0 (0‒0) | 0.959 |
| Urine (mL) | 244 (130‒400) | 250 (150‒380) | 0.778 |  | 255 (150‒414) | 259 (169‒398) | 0.785 |
| Red blood cell (unit) |  |  |  |  |  |  |  |
| Before surgery | 0 (0‒0) | 0 (0‒0) | >0.999 |  | 0 (0‒0) | 0 (0‒0) | >0.999 |
| During surgery | 0 (0‒0) | 0 (0‒0) | 0.799 |  | 0 (0‒0) | 0 (0‒0) | 0.804 |
| After surgery | 0 (0‒0) | 0 (0‒0) | 0.635 |  | 0 (0‒0) | 0 (0‒0) | 0.640 |
| Modified observer’s assessment of alertness/sedation score at PACU | 5 (5‒5) | 5 (4‒5) | <0.001 |  | 5 (5‒5) | 5 (4‒5) | <0.001 |
| PACU stay (min) | 27 (20‒43) | 37 (23‒60) | <0.001 |  | 26 (20‒43) | 37 (23‒60) | <0.001 |
| Length of stay (day) |  |  |  |  |  |  |  |
| Before surgery | 1 (1‒1) | 1 (1‒1) | 0.870 |  | 1 (1‒1) | 1 (1‒1) | 0.782 |
| After surgery | 6 (6‒7) | 6 (6‒7) | 0.778 |  | 6 (6‒7) | 6 (6‒7) | 0.537 |
| Total | 7 (7‒8) | 6 (6‒7) | 0.821 |  | 7 (7‒8) | 7 (7‒8) | 0.626 |
| ICU care, postoperatively | 1 (0.3%) | 0 (0%) | >0.999 |  | 1 (0.3%) | 0 (0%) | 0.499 |
| Ephedrine, total (mg) | 5 (0‒5) | 5 (0‒10) | 0.179 |  | 5 (0‒5) | 5 (0‒10) | 0.181 |
| Phenylephrine, total (μg) | 0 (0‒30) | 0 (0‒20) | 0.411 |  | 0 (0‒50) | 0 (0‒30) | 0.223 |
| Atropine, total (mg) | 0 (0‒0) | 0 (0‒0) | 0.314 |  | 0 (0‒0) | 0 (0‒0) | 0.207 |
| MAP (mmHg) |  |  |  |  |  |  |  |
| Before sedation | 94 (87‒102 [61‒122]) | 92 (83‒101 [61‒121]) | 0.098 |  | 94 (87‒103 [61‒125]) | 92 (84‒101 [61‒124]) | 0.083 |
| During sedation | 74 (69‒79 [41‒119]) | 77 (71‒84 [53‒103]) | <0.001 |  | 74 (69‒79 [41‒109]) | 77 (70‒83 [53‒103]) | <0.001 |
| At PACU | 80 (74‒87 [60‒112]) | 74 (68‒80 [55‒112]) | <0.001 |  | 79 (74‒87 [60‒112]) | 73 (70‒80 [55‒107]) | <0.001 |
| HR (rates/min) |  |  |  |  |  |  |  |
| Before sedation | 74 (67‒82 [46‒112]) | 74 (65‒82 [45‒125]) | 0.194 |  | 74 (67‒82 [46‒112]) | 73 (62‒83 [45‒125]) | 0.130 |
| During sedation | 63 (58‒70 [45‒125]) | 60 (55‒66 [44‒104]) | <0.001 |  | 63 (58‒70 [45‒100]) | 60 (54‒65 [44‒104]) | <0.001 |
| At PACU | 68 (62‒77 [44‒100]) | 64 (58‒72 [43‒99]) | <0.001 |  | 68 (62‒77 [44‒99]) | 64 (58‒71 [43‒99]) | <0.001 |

Data expressed as median (interquartile range), median (interquartile range [range]), or n (%).

MAP; mean arterial pressure; HR, heart rates; PACU, postanesthesia care unit; ICU, intensive care unit

**Table S3. Basal cognitive status and postoperative delirium**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Intention-to-Treat | | | |  |  | Per-Protocol | | |
|  | Propofol  (n = 366) | | Dexmedetomidine  (n = 366) | Odds Ratio  (95% CI) | P-value |  | Propofol  (n = 341) | Dexmedetomidine  (n = 342) | Odds Ratio  (95% CI) | P-value |
| Mini-Cog score | 5 (3‒5) | | 5 (3‒5) |  | 0.102 |  | 4 (3‒5) | 4 (3‒5) |  | 0.118 |
| Delirium\* | 24 (6.6%) | | 11 (3.0%) | 0.42 (0.201‒0.86) | 0.036 |  | 23 (6.7%) | 10 (2.9%) | 0.368 (0.175‒0.77) | 0.021 |
| Delirium onset |  | |  |  | 0.802 |  |  |  |  | 0.606 |
| Postoperative 1 day | 15 (4.1%) | | 7 (1.9%) |  |  |  | 14 (4.1%) | 6 (1.8%) |  |  |
| Postoperative 2 day | 5 (1.4%) | | 3 (0.8%) |  |  |  | 5 (1.5%) | 3 (0.9%) |  |  |
| Postoperative 3 day | 4 (1.1%) | | 1 (0.3%) |  |  |  | 4 (1.2%) | 1 (0.3%) |  |  |
| Delirium period\*\* |  | |  |  | Not applicable |  |  |  |  | Not applicable |
| Postoperative 1 to 2 days | 6 (1.6%) | | 0 (0%) |  |  | 5 (1.5%) | 0 (0%) |  |
| Postoperative 2 to 3 days | 1 (0.3%) | | 1 (0.3%) |  |  | 0 (0%) | 1 (0.3%) |  |
| Postoperative 1 to 3 days | 1 (0.3%) | | 0 (0%) |  |  | 0 (0%) | 0 (0%) |  |

Data expressed as median (interquartile range), n (%), or odd ratio (95% CI).

CI, confidence interval.

\* For patients with missing data due to early hospital discharge, if they were evaluated as positive for the confusion assessment method even once during the postoperative admission period, they were classified as postoperative delirium: In the propofol group, 8 and 16 patients discharged at 2 and 3 days after surgery, respectively. In the dexmedetomidine group, 4 and 18 patients discharged at 2 and 3 days after surgery, respectively.

Per-Protocol population: In the propofol group, 8 and 16 patients discharged at 2 and 3 days after surgery, respectively. In the dexmedetomidine group, 3 and 17 patients discharged at 2 and 3 days after surgery, respectively.

\*\* Only patients with delirium lasting more than two days were included.