*Supplement:*

**Rapid temperature increases under isoflurane sedation**

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**Table S1:** Patient characteristics on all sedation days

|  |  |  |  |
| --- | --- | --- | --- |
|  | Isoflurane | Propofol | Standardized mean difference |
| Sedation days [n] | 257 | 468 | - |
| Age [years] | 53 ± 16 | 65 ± 14 | 0.791 |
| Sex [male/female] | 203 / 54 | 285 / 183 | 0.402 |
| Height [cm] | 175 ± 9 | 171 ± 9 | 0.477 |
| Weight [kg] | 94 ± 32 | 86 ± 27 | 0.268 |
| BMI [kg/m2] | 31 ± 11 | 29 ± 9 | 0.113 |
| Morphine equivalentdose rates [µg/kg/h] | 85 ± 142 | 79 ± 191 | 0.038 |
| Length of sedation [days] | 7 ± 4 | 4 ± 3 | 0.770 |
| SAPS II | 36 ± 11 | 41 ± 12 | 0.428 |
| BMI, body mass index. SAPS II, Simplified Acute Physiology Score II on admission. Overall, 97 patients were included; 13 received isoflurane, 21 received propofol, and 63 received both sedatives sequentially on different sedation days. Eight patients of this study were also part of a large multicenter randomized trial [Meiser et al. Lancet Respir 2022 [5]]. |

**Table S2:** Patient characteristics on fever days

|  |  |  |  |
| --- | --- | --- | --- |
|  | Isoflurane | Propofol | Standardized mean difference |
| Sedation days with fever [n] | 41 | 41 | - |
| Age [years] | 51 ± 14 | 64 ± 15 | 0.878 |
| Sex [male/female] | 39 / 2 | 26 / 15 | 0.839 |
| Height [cm] | 179 ± 6 | 172 ± 9 | 0.924 |
| Weight [kg] | 98 ± 24 | 87 ± 24 | 0.439 |
| BMI [kg/m2] | 30 ± 6 | 30 ± 7 | 0.135 |
| Morphine equivalentdose rates [µg/kg/h] | 78 ± 130 | 30 ± 44 | 0.569 |
| Sedation day on which fever occurred [days] | 5 ± 3 | 4 ± 3 | 0.535 |
| SAPS II | 36 ± 8 | 36 ± 9 | 0.067 |
| SOFA | 11 ± 3 | 11 ± 2 | 0.135 |
| BMI, body mass index. SAPS II, Simplified Acute Physiology Score II on admission. SOFA, Sepsis-related Organ Failure Assessment score (collected daily). Of a total of 97 patients, 45 patients had episodes of fever (core temperatures ≥ 38.5°C). On days with fever, 16 patients received isoflurane and 29 received propofol. Electronic patient records were screened for the intake of fever-modulating medication (e.g., antipyretics) on fever days. One patient received a single dose of metamizole but only after the peak temperature of that day had already been reached. |