**Supplementary Table 1. The number of animals used for each experiment in the current study.**

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| --- | --- | --- |
| Experiment | Number of animals per group | Total number |
| Survival study (male) | Sedation starting at ROSC* No sedation (n = 10)
* Propofol (n = 10)
* Dexmedetomidine (n = 10)
 | 30 |
| Sedation starting at 60 minutes after ROSC* No sedation (n = 10)
* Propofol (n = 10)
* Dexmedetomidine (n = 10)
 | 30 |
| Survival study (female) | Sedation starting at ROSC* No sedation (n = 6)
* Propofol (n = 6)
* Dexmedetomidine (n = 6)
 | 18 |
| Brain histology (male) | Sedation starting at ROSC* No sedation (n = 4)
* Propofol (n = 4)
* Dexmedetomidine (n = 4)
 | 12 |
| CBF measurement (male) | Sedation starting at ROSC* No sedation (n = 6)
* Propofol (n = 5)
* Dexmedetomidine (n = 5)
 | 16 |
| Sedation starting at 60 minutes after ROSC* No sedation (n = 5)
* Propofol (n = 6)
* Dexmedetomidine (n = 6)
 | 17 |
| EEG recording (male) | * No sedation (n = 7)
* Sedation with propofol at 40 mg ∙ kg-1 ∙ h-1 starting at ROSC (n = 6)
* Sedation with dexmedetomidine starting at ROSC (n = 6)
* Sedation with propofol at 10 mg ∙ kg-1 ∙ h-1 starting at ROSC (n = 6) \*
* Sedation with propofol at 40 mg ∙ kg-1 ∙ h-1 starting at 60 minutes after ROSC (n = 6)
 | 30 |
| EEG recoding (female) | * No sedation (n = 3) \*
* Sedation with propofol at 40 mg ∙ kg-1 ∙ h-1 starting at ROSC (n = 2)
* Sedation with dexmedetomidine starting at ROSC (n = 1)
 | 5 |

\* One mouse that was not resuscitated from cardiac arrest was excluded.