**Table S1: Main characteristics of the 65 patients who underwent lumbar puncture after cardiac arrest**

|  |  |
| --- | --- |
|  | N (%) or median (interquartile range) |
|  | n = 65 |
| **Cardiac arrest Utstein criteria** |  |
| Age, years | 55 (40-67) |
| Male sex  | 40 (61.5) |
| Cardiac arrest in a public place  | 10 (15.4) |
| Arrest witnessed/monitored | 54 (83.1) |
| Bystander CPR | 53 (81.5) |
| Shockable first recorded rhythm  | 13 (20) |
| Total number of defibrillations before ROSC | 1.0 (1.0-2.3) |
| Use of epinephrine | 53 (81.5) |
| Total epinephrine dose before ROSC, mg | 3 (2-5) |
| Time from collapse to CPR (no-flow), min | 0 (0-5) |
| Time from to ROSC (low-flow), min | 15.0 (7.5-21.0) |
| Lactate concentration on ICU admission, mmol/L | 6.7 (2.9-11.0) |
| Targeted temperature management (32-36°C) on day 1 | 52 (80.0) |
| Post-resuscitation shock | 43 (66.1) |
| Renal replacement therapy | 17 (26.2) |

CPR, cardiopulmonary resuscitation; ROSC, return of spontaneous circulation; ICU, intensive care unit

**Table S2: Comparison of patients with favourable versus unfavourable outcomes in the subgroup whose cerebrospinal fluid analysis did not contribute to the diagnosis**

|  |  |
| --- | --- |
|  | **N (%) or Median (Interquartile Range**) |
|  | **CPC 1-2****n=19** | **CPC 3-4-5****n=34** | ***p* value** |
| Age, years | 53 (36-73) | 55 (41-66) | 0.99 |
| Male sex | 12 (63.2)  | 23 (67.7) | 0.77 |
| Neurological signs/symptoms before CA |  |  |  |
|  Confusion to coma | 31.6 | 26.5 | 0.76 |
|  Seizure | 31.6 | 35.29 | 1.00 |
|  Neurological focal signs | 5.3 | 8.82 | 1.00 |
|  Headache | 5.3 | 0 | 0.36 |
| Abnormal CSF | 10 (52.6) | 27 (79.4) | 0.062 |
| CSF red-cell count, per mm3 | 10 (1-218.5) | 14.5 (1-207.5) | 0.87 |
| CSF white-cell count, per mm3 | 1 (0-2) | 2 (0-3.75) | 0.13 |
| CSF neutrophil count, per mm3\* | 1 (1-1) | 1 (1-4) | - |
| CSF lymphocyte count, per mm3\* | 0 (0-0) | 0 (0-9) | - |
| CSF protein, g/L | 0.43 (0.38-0.63) | 0.57 (0.49-0.65) | 0.082 |
| CSF glucose, mmol//L | 4.8 (4.3-5.9) | 4.7 (4.2-6) | 0.98 |
| CSF lactate, mmol/L | 3.7 (3.2-4) | 5.5 (4.4-9) | 0.14 |
| CSF/serum protein quotient | 0.008 (0.006-0.009) | 0.01(0.008-0.011) | 0.017 |
| CSF/serum glucose Patients presenting with confusion to coma before CA | 0.6 (0.5-0.7) | 4.7 (4.2-6) | 0.30 |

CA: cardiac arrest; CSF: cerebrospinal fluid; CPC: Cerebral Performance Category