

Intravenous ketamine in treatment of post-anoxic refractory and super-refractory status epilepticus.

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Argomento: Trauma e arresto cardiaco

BACKGROUND: Intravenous Ketamine is a promising treatment for refractory-SE (RSE) but little data exist about its use in post-anoxic patients. We describe pattern of use, feasibility and safety of ketamine in a series of patients with post-anoxic RSE.

METHODS: Single-centre, retrospective review of medical record and EEG reports of 56 post-cardiac arrest (CA) patients with SE admitted to a cardiothoracic ICU from 2014 to 2018. All patients underwent target temperature management with EEGpod monitoring in the first 24 hrs. Patients were subsequently managed with a protocolized treatment providing subsequent anesthetic infusion cycles for EEG suppression and a multi-step anti-epileptic therapy. After each cycle EEG was recorded and anesthetic infusion resumed until RSE resolved. Neuron-Specific Enolase (NSE) was measured on day 1 and 3. Patients outcome was reported using Cerebral Performance Category (CPC) at 6 months.

RESULTS: Thirteen patients (age 55 ± 18 years) received Ketamine. All patients experienced prolonged CA (34 ± 20 min). Mean NSE was 59 ± 52 ng/L. SE appeared after 4 ± 2 days after CA and lasted 13 ± 5 days. Ketamine was used as second, third, fourth and fifth-line therapy respectively in 4, 6, 2 and 1 patient. It was chosen for adverse events of previous anesthetics (5 patients) or persistence of SE (8 patients). Ketamine infusion rate (mean 5 ± 2.8 mg/kg/h) was titrated to achieve the typical EEG pattern. No adverse event was observed. Three patients didn't resolve RSE and died. Ketamine was the last drug before RSE resolution in the remaining 10 patients, 7 of which had a CPC 1 or 2 at six months with a GCS > 8 reappraisal after 18 ± 15 day after ketamine withdrawal.

CONCLUSIONS. Ketamine appears safe and feasible in post-CA patients with RSE. Long time of neurological recovery after RSE resolution was observed.