Propofol infusion syndrome (PRIS) effects on brain fatigue: case report and literature review

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Introduction

Propofol is a general anesthetic. As a very rare, but often lethal side effect of propofol occurs PRIS. The main symptoms of PRIS include acute refractory bradycardia, rhabdomyolysis, severe metabolic acidosis, hyperlipidemia, cardiovascular collapse, renal failure and hepatomegaly. PRIS is usually associated with the use of high doses for a long time (>4 mg/kg per hour, more than 48 hours) or short-term use of high doses. The incidence of PRIS is around 1%, while the mortality rate is around 33-66%.

Case summary

A 24-year-old healthy male, got severe headache, lost consciousness, vomited and had right pupil dilatation. GCS 1+1+2=4. The fall caused massive ICH from AVM in the right temporal and parietal lobe. During the operation he got Propofol iv. 6 day after being operated on he develops rhabdomyolysis and after that renal failure. He is treated with Methylprednisolone iv. Heart ECHO was normal. ECG showed sinus tachycardia and was treated with propranolol. Epilepsy was ruled out with EEG. After 2-weeks he got ventilator-associated Pneumonia caused by Staphylococus aureus, which was treated with Penicillin and Pseudomonas that was treated with Ciprofloxacin. 3-weeks later he develops hypercalcemia that had an immobilization effect and was treated with

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Calcitonine. 11-months later he gets EP and is treated with Levetiracetam. 15-months later he remains with hypo sensibility, spastic hemiparesis of the left side extremities, clonus of the left foot, left total hemianopsia and decreased convergence, decreased visuospatial ability, decreased reading speed, tiredness and snowlines in cognitive assignments.

Conclusion

Persistent symptoms are connected to the temporal and parietal lobe damage but it is not enough clear if the patient's tiredness (brain fatigue) 15 months after PRIS is only connected to the brain damage, visual loss and anti-EP medication or it can also be the long term effect of PRIS.