Treatment approaches in post-hypoxic myoclonus: a narrative review with expert opinion

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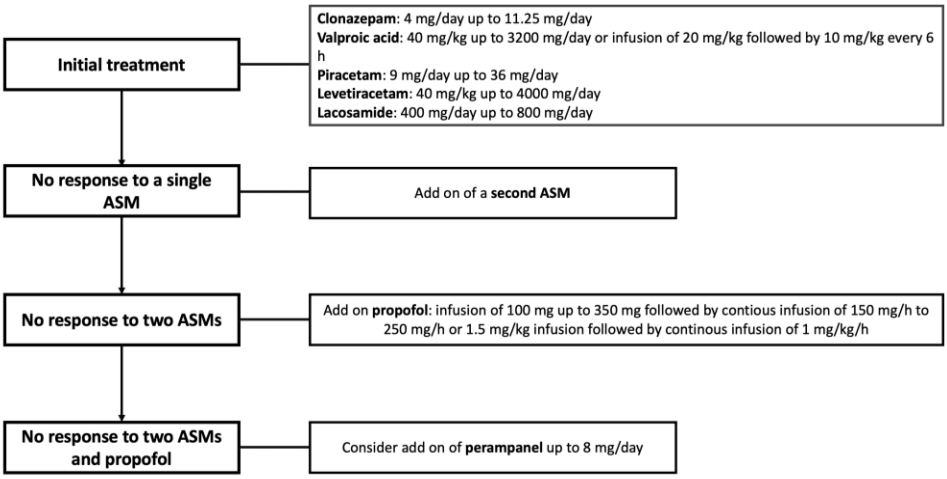
Aim: Post-hypoxic myoclonus (PHM) is a devastating complication after cardiac arrest, characterized by heterogeneous semiology, uncertain pathophysiology, and highly variable outcomes. Current therapies are largely empirical, and no intervention has consistently altered long-term prognosis. Our narrative review proposes a new approach based on a stepwise treatment.

Methods: We conducted a search in PubMed, EMBASE, and EBSCO library databases until May 2024, using the terms Posthypoxic "OR" Postanoxic AND Myoclonus AND (Management "OR" Treatment). A total of 5591 papers were identified after removing duplicates.

Results: We reviewed 21 studies on PHM. Most patients experienced poor outcomes, including high rates of mortality or progression to a vegetative state, although a minority achieved recovery. Treatment remains largely empirical and variable, with benzodiazepines and antiseizure medications (ASM) (e.g., levetiracetam, valproate, clonazepam, perampanel) most commonly used.



Conclusion: We suggest an algorithm of treatment that considers the option to start with a single ASM and we considered an add-on of a second drug in case of failure. We do not consider adding a third ASM due to the lack of efficacy. We suggest starting propofol IV and adding perampanel in case of inefficacy.

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