Psychosis of Epilepsy: A Review of Diagnosis and Management

Brittany Booker, MS4[1], Saqib Rangoonwala, MS3[2], Ayyub Imtiaz, MD[3], Karla Chamoun, MD[3], Samuel Duffy, MD[4] and Muhammad Zaidi, MD[3]

[1]Ross University School of Medicine, Bridgetown, Barbados; [2]American University of Antigua College of Medicine, Antigua and Barbuda; [3]Saint Elizabeths Hospital - Department of Behavioral Health, Washington, DC and [4]Medstar Georgetown University Hospital - Department of Psychiatry, Washington, DC

Introduction. Neurology and psychiatry have been linked together for a long period of time. One overlap demonstrated in the literature is the correlation between epilepsy with mood and psychosis. There is a big group of psychoses called the psychosis of epilepsy (POE); however, there is not much evidence about the diagnosis and management. Differentiation between POEs is difficult and is compounded by a lack of evidence-based guidelines on appropriate management. Even if you arrive at the diagnosis, POE can be difficult to manage. Some antiepileptic drugs (AEDs) cause psychiatric side effects and some antipsychotics may be epileptogenic. In this poster, we will discuss ways to diagnose and treat POE, as well as how to optimize certain AEDs in patients with POE.

Methods. Articles were chosen from multiple databases, such as MEDLINE, Google Scholar, and PsychInfo, to gather evidence about the diagnosis and management of POE. Specific keywords, such as Psychosis, Epilepsy, Antipsychotic, Antiepileptic, and Electroencephalogram (EEG) were used. Articles talking about recommendations regarding the use of AEDs and antipsychotics in POE were extracted from these databases.

Results. POE includes preictal, ictal, postictal, and interictal psychosis. Preictal psychosis is very rare and tends to present with dissociation and déjà vu. This is correlated with temporal lobe epilepsy and resolves after the seizure. Ictal psychosis will correspond with epileptic activity on EEG and can manifest as aggression, delusions, or hallucinations. Antipsychotics are contraindicated in this POE. Postictal psychosis usually presents as a combination of mood symptoms and grandiose delusions seen with interictal sharp epileptiform discharges on EEG. Interictal psychosis can be subtyped into brief and chronic, with brief occurring during periods of increasing seizure frequency and chronic having no association with seizures. They both present similar to symptoms seen in classic schizophrenia and antipsychotics are often utilized.

Clozapine and chlorpromazine were found to have the highest seizure prevalence from second- and first-generation antipsychotics respectively, and the lowest was found with risperidone. AEDs that are commonly used in psychiatry, such as oxcarbazepine, carbamazepine, valproic acid, and lamotrigine are discussed in detail regarding their optimal dosing strategy for patients presenting with POE.

Conclusions. Diagnosis and management of the various types of POE can be challenging due to the lack of literature. We recommend using the antipsychotic, risperidone, as it has shown to have the lowest seizure prevalence among all antipsychotics. Both neurologists and psychiatrists should keep POE on their differential when dealing with seizure patients with psychosis. It is crucial for psychiatrists to understand how to optimize AEDs in the management of POE as these patients are often seen on the consult service.

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Dexmedetomidine: A Review of Its Use for the Treatment and Prevention of Hyperactive Delirium in Intensive Care Units (ICU)

Brittany Booker, MS4[1], Ayyub Imtiaz, MD[2] and Muhammad Zaidi, MD[2]

[1]Ross University School of Medicine, Bridgetown, Barbados and [2]Saint Elizabeths Hospital, Department of Behavioral Health, Washington, DC

Introduction. The incidence of delirium in the ICU occurs upwards of 80% and is associated with increased length of stay in hospitals and mortality. The effects of previously recommended antipsychotics and benzodiazepines for management of ICU delirium have come into question as they have been associated with no change in or even exacerbation of delirium. This has led to unclear pharmacological treatment recommendations and the need to seek explicit treatment of ICU delirium. Dexmedetomidine, an adrenergic alpha 2 receptor agonist, has been shown to reduce the development of delirium and improve the resolution of delirium. The aim of this review is to explore the evidence that supports the use of dexmedetomidine for treatment and prevention of hyperactive delirium in ICU patients.

Methods. A literature review using articles from databases such as PubMed and Google Scholar was conducted to gather supporting evidence on the use of dexmedetomidine in ICU delirium. The articles included in this review were randomized controlled trials (RCT), observational studies, systematic reviews and meta-analyses, and literature review articles. The main outcomes measured included a decrease in scales used to measure delirium and agitation, time spent in delirium, duration of mechanical ventilation, and incidence of delirium.

Results. A RCT comparing the use of lorazepam and dexmedetomidine in 106 adult mechanically ventilated ICU patients demonstrated that dexmedetomidine at 0.15- 1.5 μg/kg/h resulted in more days without delirium. Another study done to compare the efficacy and safety of prolonged sedation in 375 mechanically ventilated patients found that individuals receiving dexmedetomidine at a rate of 0.2-1.4 μg/kg/h spent less time on the ventilator, developed delirium 20% less often, and were off mechanical ventilation almost 2 days sooner compared to midazolam. The Dexmedetomidine to Lessen ICU Agitation RCT, which involved 74 adults treated at rate of 0.5-1.5 μg/kg/h in whom extubation was not done due to delirium severity, demonstrated that dexmedetomidine increased ventilator free hours by 17 hours compared to placebo. Another RCT of 100 delirium-free ICU adults demonstrated a greater proportion of patients who remained delirium-free during the ICU stay after administration of

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