

## Psychosis of Epilepsy: A Review of Diagnosis and Management

Brittany Booker, MS<sup>4</sup><sup>1</sup>, Saqib Rangoonwala, MS<sup>3</sup><sup>2</sup>,  
Ayyub Imtiaz, MD<sup>3</sup>, Karla Chamoun, MD<sup>3</sup>,  
Samuel Duffy, MD<sup>4</sup> and Muhammad Zaidi, MD<sup>3</sup>

<sup>1</sup>Ross University School of Medicine, Bridgetown, Barbados; <sup>2</sup>American University of Antigua College of Medicine, Antigua and Barbuda; <sup>3</sup>Saint Elizabeths Hospital - Department of Behavioral Health, Washington, DC and <sup>4</sup>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.

**Funding.** No Funding

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

Brittany Booker, MS<sup>4</sup><sup>1</sup>, Ayyub Imtiaz, MD<sup>2</sup> and  
Muhammad Zaidi, MD<sup>2</sup>

<sup>1</sup>Ross University School of Medicine, Bridgetown, Barbados and <sup>2</sup>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

nocturnal dexmedetomidine at rate of 0.2-0.7 µg/kg/h. A case series done to explore the use of dexmedetomidine in post-traumatic brain injury (TBI) showed dexmedetomidine at a rate of 0.49 µg/kg/h in 85 patients with severe TBI did not worsen neurological function.

**Conclusion.** Delirium in ICU patients occur at exceptionally high rates and there is a need for clear pharmacologic treatment. Current literature supports the use of dexmedetomidine for reduction of delirium in ICU patients with potential to eliminate risk associated with previously used antipsychotics and benefits of safe use in TBI, decreased risk of polypharmacy and overall mortality associated with ICU delirium.

**Funding.** No Funding

## An Epoch of Ekbom's Syndrome

Camryn F. Hirsch<sup>1</sup> and Patricia M. Bonilla<sup>2</sup>

<sup>1</sup>Ross University School of Medicine, Bridgetown, Barbados and <sup>2</sup>Smell and Taste Treatment and Research Foundation, Chicago, IL

**Introduction.** Delusional parasitosis, yclept Ekbom's Syndrome, was originally described in 1938 and has an incidence of up to 4.2 per 100,000 people (Olivera, 2017; Orsolini, 2020). While the average duration of this delusion is three years, it can last decades (Al-Imam, 2019). Ekbom's Syndrome of ultra-short duration, only one hour, has not heretofore been described.

**Methods.** A 36-year-old woman with a past history of schizoaffective disorder, bipolar subtype, generalized anxiety disorder, and alcohol use disorder with a history of seizures and delirium tremens presented with a one-hour duration of the delusion of being infested with bugs. She believed that microscopic bugs flew up her nose, stayed there for one hour, and flew out. This had never happened to her before nor since. She admitted to sadness, crying spells, hopelessness, lack of social interaction, anhedonia, fatigue, irritability, anger, insomnia, anorexia, low interest, amotivation, lack of sexuality, racing thoughts, and anxiety. She denied déjà vu and jamais vu, or any other hallucinations—tactile, visual, or auditory.

**Results.** Abnormalities in Neurologic Examination: Mental Status Examination: Oriented x2, hyperverbal, anxious mood, blunted affect. Memory Testing: Immediate Recall: 6 digits forwards and 4 backwards. Recent Recall: 2 of 4 objects in three minutes without reinforcement, 4 of 4 objects with reinforcement. Remote Recall: Unable to name the presidents. Able to spell the word "world" forwards, but not backwards.

Oral Calculations: 75%. Written Calculations: 50%. Ideomotor Apraxia: Absent. Ideational Apraxia: 66%. Vocabulary Testing: 19/24. Drawing to Commands: 1/3. Higher Cognitive Function Test: 66%. Proverbs: 60%. Similarities: 80%. Judgement: 40%. Cranial Nerve (CN) Examination abnormalities. Cranial Nerve (CN) Examination: CN I: Alcohol Sniff Test: 2 (anosmia). CN III, IV, VI: Bilateral ptosis. Reflexes: 3+ throughout. Other: Blood Alcohol: 0.03.

**Conclusions.** Delusional Parasitosis, in Diagnostic and Statistical Manual V (DSM V), is categorized as delusional disorder, somatic type, and requires persistence of symptoms for at least one month (American Psychiatric Association, 2013). Ekbom's Syndrome is

generally years in duration, ranging from months to decades, with over 20% of individuals suffering for more than five years (Hinkle, 2010). Others have found that mean duration is 2.6 years and suggested that a shorter duration reflected a better prognosis (Boggild, 2010). In a meta-analysis of 1,223 cases, mean duration was found to be three years with no correlation between age of onset and duration of delusions (Trabert, 1995). In a study with 365 patients with delusional parasitosis, 39% had symptoms for less than 1 year, 61% were of greater than a year, and 20% had Ekbom Syndrome for five years or longer (Reilly, 1986). A short duration of 3 months has also been noted but delusional parasitosis is more typically seen to last more than twenty years (Martins, 2016; Colbeaux, 2020; Dridi, 2015; Olari, 2011; Alves, 2010; Nicolato, 2006; Mahler, 2008; Bellanger, 2009). The one-hour duration in our patient suggests either that this delusional disorder diagnosis must remain provisional or the criteria should be reduced to substantially less than one-month duration. In those with symptoms of delusional parasitosis, the transient nature of symptoms should not preclude the diagnosis and query as to this disorder in those with acute delusions may be revealing.

**Funding.** No Funding

## Aripiprazole Once-Monthly for the Treatment of Adult Patients in the Earlier Stages of Bipolar I Disorder: A Post Hoc Analysis of Clinical Trial Data

Karimah S. Bell Lynum<sup>1</sup>, Zhen Zhang<sup>1</sup>, Christine F. Castro<sup>2</sup>, Mehul Patel<sup>1</sup> and Mauricio Tohen<sup>3</sup>

<sup>1</sup>Otsuka Pharmaceutical Development & Commercialization Inc., Princeton, NJ, USA; <sup>2</sup>Lundbeck LLC, Deerfield, IL, USA and <sup>3</sup>Department of Psychiatry & Behavioral Sciences, University of New Mexico, Albuquerque, NM, USA

**Introduction.** The efficacy and safety of aripiprazole once-monthly 400 mg (AOM 400) as maintenance monotherapy treatment for bipolar I disorder (BP-I) were demonstrated in a double-blind, placebo-controlled, 52-week randomized withdrawal trial (NCT01567527). This *post hoc* analysis of data from NCT01567527 evaluated the efficacy of AOM 400 in the earlier BP-I population.

**Methods.** Patients within the first quartile of the dataset according to age (18–32 years: AOM 400, n=36; placebo, n=34) or disease duration (≤4.6 years: AOM 400, n=33; placebo, n=34) were considered to be in the earlier stages of BP-I, and were included. The primary outcome was time from randomization to recurrence of any mood episode, defined as meeting any one of several predetermined criteria, including Young Mania Rating Scale (YMRS) total score ≥15 or clinical worsening.

**Results.** Time to recurrence of any mood episode was significantly delayed with AOM 400 versus placebo in patients aged 18–32 years (hazard ratio [HR]: 2.462 [95% confidence interval (CI): 1.092, 5.547]; p<0.05) and in patients with a disease duration ≤4.6 years (HR: 3.207 [95% CI: 1.346, 7.645]; p<0.01). Further