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Poster Abstracts

organic acids, lactate, pyruvate and CPK, and a negative Fragile X, therefore genetic basis for psychosis was eliminated.

Conclusion: In the interim since onset of psychosis patient continues to be seizure free, though continues to have psychosis which largely responds to atypical antipsychotics, particularly Lurasidone 100 mg. He has recently also begun to develop tardive dyskinesia.

Discussion: Faced with a normal genetic work-up, this case appears to potentially represent a rare case of forced normalization, a phenomenon which is still under debate in the field of psychiatry in epilepsy. This case reminds the consult-liaison psychiatrist of the phenomenon of forced normalization, and to keep the spectrum of epilepsy related psychotic phenomena on their differential.

Learning objectives:
1. Discuss psychotic phenomena and their relationship to seizure locus, duration and subtype
2. Review the phenomenon of forced normalization, and recall how it relates in timing to seizure activity

Reference:
1. Bragatti, J. Forced normalization revisited: new concepts about a paradoxical phenomenon. Front. Integr. Neurosci. 2021;15:736248

https://doi.org/10.1016/j.jaclp.2022.10.102

(100) Treatment of Post-ictal Psychosis in Medically Refractory Epilepsy Complicated by Takotsubo Cardiomyopathy and Myocardial Infarction: A Case Report and Literature Review
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Abstract: Background/Significance: Individuals with epilepsy have an almost eight-fold increased risk of psychosis compared to the general population (1). Though antiseizure medications may reduce the frequency of seizures and peri-ictal psychosis, some can separately exacerbate neuropsychiatric symptoms including psychosis. Here we report a case of a patient with medically refractory epilepsy and comorbid cardiac illness, in which the psychiatry service assisted in the diagnosis and management of post-ictal psychosis in anticipation of surgical interventions for seizures.

Case: Mr. M is a 43 year-old man who developed medically refractory epilepsy after sustaining three traumatic brain injuries. He has experienced nocturnal seizures followed by aggression with property destruction, paranoid delusions, visions of dead bodies falling from the sky, and running for miles down the road, and suicidality resulting in multiple hospitalizations. Notable medical history includes admission for Takotsubo cardiomyopathy thought to be related to severe epilepsy complicated by a ventricular tachycardia and STEMI, neurocognitive impairment, as well as depression and irritability exacerbated upon recent initiation of zonisamide. Psychiatry was consulted for diagnostic clarification and management recommendations for psychosis in anticipation of surgical intervention including potential implantation of an intracranial device for refractory epilepsy. The patient was diagnosed with post-ictal psychosis, initiated on aripiprazole with target dose 10mg, and transitioned from zonisamide to eslicarbazepine, with additional planning for an upcoming Phase II intracranial EEG study.

Discussion: There is a paucity of evidence guiding the use of neuroleptic medication for management of psychosis in epilepsy (2). Aripiprazole was chosen due to its low risk of QT-prolongation, as the use of haloperidol for psychosis was implicated in the patient’s development of ventricular tachycardia and cardiac arrest. As zonisamide is associated with a higher risk of psychiatric side effects, eslicarbazepine was chosen as an alternative. It is important to anticipate the emergence of psychosis in the setting of antiepileptic reduction or discontinuation during invasive EEG monitoring.

Conclusions/Implications: In patients with peri-ictal psychosis and mood symptoms, anti-seizure medications that carry a higher risk of neuropsychiatric side effects should be avoided, as should certain neuroleptics that significantly reduce the seizure threshold. Long-term neuroleptic treatment may be helpful in patients with high morbidity from psychosis related to refractory epilepsy.

Learning Objectives:
1. Describe the literature on the classification of epilepsy-related psychotic symptoms.
2. Understand the multifactorial contribution to mood and behavioral changes in TBI and severe epilepsy.
3. Explain the role for psychiatrists in anticipatory planning for psychosis during invasive EEG studies and surgical treatments of epilepsy

References:
1. Clancy MJ, et al. The prevalence of psychosis in epilepsy; a systematic review and meta-analysis. BMC Psychiatry. 2014;14:75.
2. Agrawal N and Mula M. Treatment of psychoses in patients with epilepsy: an update. Therapeutic Advances in Psychopharmacology. January 2019.

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(101) Validating the Busch Francis Scale for use in Telepsychiatry
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Abstract: Background: The COVID-19 pandemic has dramatically accelerated the utilization and acceptance of telepsychiatry, with many departments transitioning to virtual models over the past 2 years out of necessity. While there has been some research on physician and patient satisfaction with the transition, there has been significantly less research on the quality of care provided (Mishkin). By its nature, telemedicine precludes physical examination. While many psychiatric conditions are amenable to diagnosis via patient interview alone, some such as catatonia require a physical exam for diagnosis. The Busch Francis Catatonia Rating Scale (BFCRS) is a well validated in-person exam for catatonia to both screen for and rate the severity of a catatonia diagnosis (Sienauert), but to our knowledge it has not been validated via telemedicine. Our literature review revealed a paucity of research on the contribution of each individual item to the overall sensitivity of the rating scale, thus it is impossible to predict the value of a fully virtual or hybrid exam. We plan to evaluate the inter-rater reliability between an in-person BFCRS performed by a psychiatrist and one supervised by a psychiatrist through telemedicine technology. Current practice at our institution is for the psychiatry resident performing tele-consults to be an in-person BFCRS performed by a psychiatrist and one supervised by a psychiatrist through telemedicine technology. Current practice at our institution is for the psychiatry resident performing tele-consults to be an in-person BFCRS performed by a psychiatrist and one supervised by a psychiatrist through telemedicine technology.

Methods: We will draw participants from the pool of patients for whom psychiatric consults are ordered at two separate medical campuses. Our team will consist of C-L psychiatry fellows performing BFCRS exams patients at these campuses; we will strive to see all patients for whom a psychiatric consultation is ordered. In addition to a standard psychiatric consult (which may or may not include a BFCRS), patients will receive an in-person BFCRS screening exam performed and scored by the research team member at their site and one additional hybrid BFCRS exam scored by the research team member at the alternate site with physical exam components only
performed by the onsite research team member. Data collected for each participant will include demographic information, medical and psychiatric diagnoses and BFCRS scores. We will compare the sensitivity and specificity fully virtual (which will by necessity exclude some components such as rigidity) and hybrid BFCRS exam to the full in-person scale, which we will treat as a gold standard.

**Discussion/Conclusion:** This project is currently in early stages. We hope to gather data to inform the future practice of C-L psychiatrists performing consultations through telemedicine.

Mishkin AD, Cheung S, Capote J, Fan W, Muskin PR. Survey of clinician experiences of telepsychiatry and tele-consultation-liaison psychiatry. J Acad Consult Liaison Psychiatry. Published online November 15, 2021;S2667-2960(21)00184-1.

**Reference:**
Sienaat P, Roosleet J, De Fruyt J. Measuring catatonia: a systematic review of rating scales. J Affect Disord. 2011;135(1-3):1-9
https://doi.org/10.1016/j.jaip.2022.10.104

(102) Validation of Cerebral State Monitor Frequency Power Ratios for Detection of Delirium
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**Abstract: Background:** The detection of delirium in hospitalized patients remains an important clinical concern. Underrecognized and undertreated delirium is associated with longer length of stay, prolonged cognitive impairment after discharge, and increased long-term mortality. Current screening tools such as the Confusion Assessment Method (CAM) have limited validity in busy clinical settings. Over the past five years, significant advances have been made in biomarker-based detection methods for delirium, using both experimental and FDA-approved cerebral state monitors (CSMs) that record bedside electroencephalography (EEG). Our research team has previously shown that density spectral array (DSA) data from commercially available CSMs can differentiate delirious and non-delirious patients using non-proprietary algorithms (1). High delta, low alpha/high delta, and low theta/high delta ratios were found to be significantly associated with delirium (p=.011, p=.032, p=.017, respectively). However, results require validation in larger sample sizes.

**Methods:** In this interim analysis of data from an ongoing study protocol, delirious and nondelirious participants are recruited from medically hospitalized patients receiving psychiatric consultation at the University of New Mexico Hospital. 3D-CAM is obtained before monitoring with a Masimo CSM for ten minutes with eyes closed. Four-channel frontotemporal raw EEG data is collected to generate frequency spectrograms with the freely available MATLAB-based program, Brainstorm. Power values are extracted for low/high alpha, beta, theta, and delta frequency bands in each channel; mean frequency band power and ratios are calculated. EEG variables are compared between groups using Mann Whitney U tests to assess for association with delirium. Receiver-operator curves are calculated to determine cutpoints with maximum sensitivity and specificity for 3D-CAM and significant EEG variables.

**Results:** We will report updated results from the data set at the Annual Meeting. We hypothesize that EEG power in the high delta range will be able to differentiate delirious from nondelirious patients with superior sensitivity and specificity compared to 3D-CAM.

**Discussion:** As delirium develops, the EEG reflects diminution of alpha power and increases in theta and delta power. The ongoing work by several research groups indicate significant promise for CSMs to collect and interpret EEG data quantitatively at the bedside to identify delirium rapidly and improve clinical outcomes. Factors such as brain lesions, advanced age, agitation, and EEG-altering medications may be confounds that require studies with large numbers of diverse clinical populations to fully validate this technology.

**Conclusion:** Once validated, a Masimo CSM could improve upon the detection of delirium in hospitalized patients and serve as a widespread objective screening tool.

**Reference:**
1. Luo, A., Muraida, S., Pinchotti D et al. Bispectral Index Monitoring With Density Spectral Array for Delirium Detection. Psychosomatics 2020; S0033-3182(20)30242-5. https://doi.org/10.1016/j.jaip.2022.10.105

(103) When Zebras Travel in Packs: HSV and Anti-NMDA Receptor Encephalitis with Secondary Delirious Catatonic Mania
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**Abstract: Significance:** Treatment of delirious catatonic mania is poorly defined.

**Case:** Mr. X was a 45-year-old Spanish-speaking man with no medical or psychiatric history prior a series of emergency room (ER) visits and hospitalizations. He was initially discharged from the ER with a nonspecific viral-type illness. He then developed headache, dizziness, and anorexia, prompting hospitalization and treatment for PCR-confirmed HSV encephalitis with a one-week course of IV acyclovir. He was discharged home on oral medication following significant improvement of his symptoms. He was admitted a second time with notable somnolence and negative EEG and received four additional weeks of IV acyclovir.

Three months after ER visit, new incontinence, gait unsteadiness, dysarthria, aphasia, and significant alteration of mental status prompted third hospitalization. EEG showed intermittent generalized rhythmical delta activity. MRI brain with and without contrast demonstrated increased FLAIR in bilateral temporal lobes compatible with prior HSV encephalitis; however, both serum and CSF autoimmune panels were positive for Anti-NMDA receptor antibody consistent with autoimmune encephalitis.

Psychiatry was consulted at this point for altered mental status and started low-dose risperidone to target hypoaemic delirium and psychosis with Cotard delusion. The patient required an extended hospitalization with minimal response to interventions directed towards autoimmune encephalitis (IV steroids, PLEX). Subsequently, symptoms of catatonia emerged with equivocal responses to intermittent lorazepam challenges. In month four, the patient was switched to low-dose olanzapine given worsening agitation. He subsequently developed new severe psychomotor agitation, hypersexuality, decreased sleep, and spontaneously reported “racing thoughts”. Olanzapine was reduced and lorazepam and divalproex were started, resulting in rapid lysis of both manic and catatonic symptoms and improvement of overall mental status.

**Discussion:** Anti-NMDA receptor autoimmune encephalitis predisposes patients to a wide variety of neuropsychiatric syndromes, including delirious mania (Restrepo-Martinez, 2020). Delirious mania is a poorly defined entity and can be complicated by catatonic symptoms; benzodiazepines have been useful in treatment (Lee, 2012). This case shows that antipsychotics can be used sparingly to safely treat psychotic symptoms underlying autoimmune encephalitis, but additional agents...