ALABAMA PSYCHIATRIC PHYSICIANS ASSOCIATION
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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-01

Title: Silent for a Decade: A Case of Selective Mutism

Presenting Author/Affiliation: Elizabeth Olson, MS-4, UAB Heersink School of Medicine

Additional Authors/Affiliations: Michelle Massey, MS4, UAB Heersink School of Medicine; Janaki Nimmagadda, MD, UABSOM Huntsville Campus, Department of Psychiatry

Introduction/Background: Selective mutism is a rare disorder in which a child does not speak in select environments.

It is often first brought to the attention of providers at the onset of schooling when the child refuses to speak in the classroom setting. The seemingly sudden emergence of selective mutism can be frustrating to parents and teachers, and the child may be incorrectly diagnosed with disorders relating to oppositional defiance. In the DSM-IV, the previously named elective mutism was changed to selective mutism to emphasize that the disorder is rooted in anxiety, not defiance (1). The DSM-V now categorizes Selective Mutism as an anxiety disorder.

Description: 16 yo female with a history of ASD, MDD, and sexual abuse presented to clinic with her mom due to her inability to speak. She was shy as a child but able to speak in social gatherings. Family noticed declining social function over the years which eventually resulted in marked social impairment by age 13. She now speaks very minimally at home and refuses to speak to anyone outside the home. The patient communicates well with technology and has many friends online. She has clarified that she would like to speak but is unable.

On exam, mood was anxious and guarded with a matched affect. She was often trembling or rocking back and forth but fully oriented. Although she only communicated by typing on her phone, her thought process was logical with normal flow. Fundamental knowledge was appropriate with adequate intellectual functioning. Insight and judgment were fair.

Discussion and Conclusion: Our patient has always had limited social interactions outside the home since she is homeschooled, which makes it difficult to assess for worsening or improvement of symptoms. This case was also complicated by the comorbid diagnosis of ASD, since many children with Autism have difficulties with speech and socialization (2). While therapy is a staple of treatment, some patients with Selective Mutism may benefit from treatment with pharmacological management such as SSRIs. Family members and school staff should also be educated on how to eliminate the pressure of speaking and instead focus on alternative communication methods (3).

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-02

Title: Benefits of L-Methylfolate for a Patient With Depression

Presenting Author/Affiliation: Sudarsan Murali, MS-3, UAB

Additional Authors/Affiliations: Anupama Yedla MD, Janaki Nimmaggada, MD, Clinton Martin, MD

Introduction/Background:
- Dietary nutrients such as folate (B9) are essential for many anabolic processes in the human body, and particularly important for neurotransmitter biosynthesis [1].
- Folate levels have been associated with patients suffering from Major Depressive Disorder (MDD) [2]
- In one study with patients suffering from SSRI treatment resistant, Papakostas et al. were able to demonstrate that 15mg of L-methylfolate showed greater efficacy compared to SSRI with placebo [3].
- Methylfolate is advantageous compared to normal folate supplementation with superior bioavailability [4].

Description: A 17-year-old male presented to clinic with a history of chronic depression and anxiety from the age of 14. Patient was initially treated using an SSRI and CBT beginning at the age of 14. Patient was also started on Depalin a methylfolate supplement. He received relief of symptoms of depression without side effects. He has been stable on his regimen for 3 years.

Discussion and Conclusion:
- Methylfolate supplementation is a valuable addition to the physician's toolkit when considering treatment resistant depression.
- Supplementation of methylfolate is particularly supported in MTHFR gene mutations that suffer from depression [5].
- Other indications we considered include patients with poor GI function as in the case of Chron's disease or other Irritable Bowel Disease's where absorption may be affected
- Further studies are necessary to elucidate indications where supplementation should be a part of treatment algorithms, but also to validate efficacy in such situations
- Cost is a primary driver preventing routine supplementation, but with over the counter methylfolate supplements becoming available, further usage poses an interesting opportunity to additionally support patients suffering from depression

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-03

Title: Rapid Rise and Rapid Fall: Hormonal Effects on Anxiety and Depression

Presenting Author/Affiliation: Mallory Jones, MS-3, UAB Heersink School of Medicine

Additional Author/Affiliation: Janaki Nimmagadda, MD, UABSOM

Introduction/Background: Anxiety and depression are disproportionately more prevalent in women than in men, (1) and studies have shown that women are nearly twice as likely to experience anxiety and depression than men during childbearing years.(2) The hormones estrogen and progesterone modulate areas of the brain that control mood and the stress response.(3) It is hypothesized that estrogen and progesterone signaling have effects on the hypothalamic-pituitary-adrenal (HPA) axis, altering the stress response in women and serving as a risk factor for anxiety and depression.(4) Studies demonstrate that fluctuation of these hormones during a menstrual cycle, namely the rapid rise then rapid fall during the luteal phase, correlate with the timing of increasing stress related anxiety and depression symptoms seen in women.(5)

Description: 16-year-old female with past medical history of depression and anxiety presents due to worsening of symptoms. During a prior appointment, she informed that her mood symptoms had been greatly improved after she began taking combined oral contraceptive pills. At that visit, she requested to stop taking her selective serotonin reuptake inhibitor (SSRI) medication. However, she had to stop her oral contraceptive a month prior to presentation due to adverse effects. Since stopping the oral contraceptive, she reports her mood symptoms have greatly worsened, impairing her relationships, school performance, and ability to keep up with her responsibilities. She presents with complaints of increased feelings of anxiousness and depression and requests to initiate SSRI treatment again.

On exam the patient had a depressed mood and affect with a blunted range. She made poor eye contact and was tearful answering questions.

Discussion and Conclusion: Neurons in the paraventricular nucleus (PVN) of the hypothalamus contain sex hormone receptors, and studies have shown that estrogen stimulates corticotropic releasing hormone (CRH) release while androgens repress CRH release.(4) Progesterone, and its derivative allopregnanolone have been shown to possess antidepressive and anxiolytic properties and to inhibit the HPA axis.(5) Estrogen and progesterone therapies decrease hormonal fluctuations seen throughout the menstrual cycle and have shown to be a promising option for treatment of anxiety and depression as they decrease depressive symptoms when used alone and in combination with SSRIs in multiple studies.(5,6)

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-04

Title: Marijuana Variant of Concern: Delta 8-tetrahydrocannabinol (Delta-8-THC, Δ¬8-THC)

Presenting Author/Affiliation: Mack Bozman, MS-3, University of Alabama at Birmingham Heersink School of Medicine

Additional Authors/Affiliations: Senthil Rajaram Manoharan, MBBS, MD; Tarak Vasavada, MD – Psychiatry Department Huntsville Hospital

Introduction/Background: Recreational use of Delta 8-tetrahydrocannabinol (Delta-8-THC, Δ¬8-THC) is becoming more common as are emergency room visits and lasting associated psychiatric conditions12. It is important to recognize the psychoactive effects of Delta-8 as there is little data. Physicians must maintain a high index of suspicion for psychosis in relation to this compound.

Description: 23-year-old college student presenting to the emergency department with vague abdominal pain with "tickling" somatic sensation, decreased appetite, increased anxiety, and diarrhea. Patient admitted to using delta-8-THC for four months. Further workup was unremarkable. He was discharged with sucralfate and omeprazole. Four months later he was admitted to the emergency department because a friend overheard him talking about suicide and called emergency medical services. On admission he was laughing uncontrollably, pacing, and stating he "thinks delta-8 has done something to my brain", despite stating that he had not used Δ¬8-THC since his previous admission. His abdominal symptoms had persisted, and he asked a nurse then if "someone could kill him to end this." He became stable with use of antipsychotics and continued with outpatient psychiatric counseling. He has since been readmitted on three more occasions for similar complaints with increasing treatment-resistant depression and suicidal ideation and has recently undergone electroconvulsive therapy.

Discussion and Conclusion: Markets are saturated with vendors selling Δ¬8-THC vaporizing pens and gummies and, unfortunately, these websites usually do not mention harmful side effects. The FDA has stated that this compound is not safe, not regulated, and products have psychoactive and intoxicating effects similar to delta-9-THC3. Due to lack of regulation, the process of synthesizing Delta-8 may involve harmful household chemicals or contaminants. The National Poison Control has reported 660 known exposures to delta-8 between 01/01/21–06/01/214. Patients who suffer from addiction and substance abuse are complex and difficult to treat. To couple this with the recent battery of psychotic episodes and hospital admissions, relating to the use of an easily obtainable and non-regulated drug, makes this ever-more challenging5. It is important for physicians become aware of delta-8-tetrahydrocannabinol and other legal THC derivatives, slang terms ("marijuana-lite" and "diet-weed"), and potential side effects/risks to better educate patients and families6.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-05

Title: Looking Past Blindness: Assessing Mental Health in Stargardt Disease

Presenting Author/Affiliation: Sebastian Schormann, MS-3, UAB Heersink School of Medicine

Additional Author/Affiliation: Clinton Martin, MD, UAB Heersink School of Medicine, Huntsville Campus, Department of Psychiatry

Introduction/Background: Macular dystrophies are genetically inherited eye disorders that cause central vision loss through degeneration of the macula. The most common macular dystrophy is Stargardt disease (STGD) occurring in 1 in 8,000-10,000 people due to autosomal recessive mutations in the ABCA4 gene. There are many disease-causing variants leading to highly heterogenous presentations, but most patients present in the first 2 decades with bilateral, progressive, central vision loss with an average vision of 20/70-20/200. In addition to vision loss, patients with STGD struggle with loss of function leading to increased psychiatric comorbidities like depression.

Description: A 27-year-old male with history of legal blindness secondary to STGD presented as a new patient for depression and anxiety. He had experienced symptoms of depression, anxiety, and difficulty concentrating for several years, and these symptoms worsened since the start of the COVID-19 pandemic. He had difficulties with motivation, feelings of worthlessness, and spending significant time overanalyzing scenarios which prevented him from initiating new projects and completing old ones. He had never taken psychotropic medications, and his family history was significant for severe depression on his mother's side. He did not have any friends, he was homeschooled through high school, and he was currently unemployed. Exam was notable for poor eye contact, circumstantial thought process, average intellect, and depressed and anxious affect.

Discussion and Conclusion: STGD remains relatively unknown despite extensive knowledge about its etiology, pathogenesis, and manifestations. Because of its relatively common frequency and severe presentation, STGD is the target of more clinical trials than any other inherited disorder with highly specific gene replacement and stem cell therapies to improve patients' vision. While none of these disease-modifying therapies are currently approved, there remains a separate underdiagnosed and undertreated manifestation of STGD - depression. Patients with STGD commonly report difficulties driving, concentrating, performing physical activities, and recognizing faces. As a result, patients with STGD are significantly more likely to exhibit comorbid depressive symptoms that correlate with the severity of their illness. Thus, it remains prudent for any healthcare worker to be cognizant of the treatable psychiatric comorbidities in STGD as early diagnosis and treatment can improve patient quality of life.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-06

Title: SSRI Usage During Pregnancy

Presenting Author/Affiliation: Mallory Jones, MS-3, UAB Heersink School of Medicine

Additional Authors/Affiliations: Christiaan Heersink, MD, UAB Heersink School of Medicine; Clinton Martin, MD, UAB Huntsville Psychiatry

Introduction/Background: Nearly half a million pregnancies each year in the US involve women who have or develop psychiatric illnesses.1 Usage of antidepressants during pregnancy has been linked to pregnancy loss, growth restrictions, preterm delivery, and congenital malformations.2 Conversely, the risk of untreated psychiatric illness during pregnancy involves decreased adherence to prenatal care, preterm delivery, growth delays in neonates, and increased risk of suicidal ideation, psychosis, and postpartum depression in mothers.2 While deciding if and which psychiatric medications should be prescribed, prescribers must weigh the risk of adverse effects from the medications vs the adverse effects of untreated depression on mothers and infants. In this case report we aim to discuss which SSRI medications are safer options for mothers and infants during pregnancy and lactation.

Description: Patient is a 20-year-old female with past medical history of depression with prior suicide attempt presenting to her psychiatrist after becoming pregnant. The patient is currently well controlled on her regimen of 40mg of paroxetine daily.

In discussion with the patient, it becomes clear that before medication she was severely depressed and unable to maintain her activities of daily living. She has tried several antidepressant medications in the past, but Paroxetine has been the most effective for her.

After some consideration and discussion with the patient, it was decided that she would try bupropion, as it is an FDA class B medication and has a safer profile in pregnancy. The patient was counseled to continue after delivery, despite desiring to breast feed as the benefits again outweighed the risks.

Discussion and Conclusion: Paroxetine is considered an FDA class D medication in pregnancy and should not be a first line option for pregnant patients, breastfeeding patients, or patients planning to become pregnant. Bupropion is class B medication, and thus preferred if tolerated by patients. It is important to weigh the risks of untreated depression to the mother and fetus against the risks of antidepressant medication on the fetus when counseling pregnant patients with depression on treatment options. In our case, it was decided that due to the patient's history of suicide attempt, the risks of not treating the patient outweighed the risk of potential adverse effects in the fetus.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-07

Title: Psychosis and Gun Ownership

Presenting Author/Affiliation: Adam Bonner, MS-3, University of Alabama at Birmingham

Additional Authors/Affiliations: Carly Westmoreland, MS-3, UAB, Clinton Martin, MD, UAB-Huntsville Department of Psychiatry

Introduction/Background: Around 40% of Americans own guns, with about 75% saying they own a handgun for self or home defense. The relationship between gun ownership and mental illness has been well documented and debated, resulting in several complex and often blurring statutes being placed to control access to guns for people deemed mentally ill to decrease risk of suicide and homicide. We present a case of gun ownership with new onset psychosis, and pose a research question of how to best approach the situation.

Description: Patient is a 64yoWM with a PMH of pontine CVA one year ago, he had no psychotic symptoms, anxiety, or depression before the CVA. He now states that he is constantly anxious that someone is trying to get in his house and steal from him, and that his neighbors are going to take away his land. He is currently being treated with escitalopram and quetiapine. He appears slightly disheveled with poor grooming on exam, but does not have any racing thoughts, suicidal, or homicidal ideation. He stated that he owned over 100 firearms. Despite denying suicidal or homicidal ideation, we thought best to advise the patient and his wife to rid the house of all firearms.

Discussion and Conclusion: Federal firearm restrictions related to mental illness have existed since 1968 but were not implemented until the 1990s and have underwent multiple revisions since their initial placements. The National Instant Criminal Background Check System (NICS) went into effect in 1998, and several mass shootings linked to mental illness prompted Congress to pass the NICS Improvement Act (NICSA) in 2008 which incentivized states to report their gun disqualifying mental health records. Although gun restriction laws greatly vary from state to state, a mainstay across the nation states that anyone receiving involuntary inpatient or outpatient psychiatric treatment or those diagnosed with bipolar disorder or schizophrenia should not have access to firearms. Upon reviewing the literature our team noticed that there is a lacking amount of information on how to approach situations where patients are not diagnosed with bipolar disorder, schizophrenia, or are receiving involuntary treatment who are having psychotic symptoms and have access to firearms.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-08

Title: Post-Stroke Psychosis

Presenting Author/Affiliation: Jayci Hamrick, MS3, University of Alabama at Huntsville School of Medicine

Additional Author/Affiliation: Clinton Martin, MD, UAB School of Medicine Huntsville Campus

Introduction/Background: Common psychosis features after a stroke include delusions, hallucinations, mood changes with psychotic features, respectively.1 Neuropsychiatry symptoms following stroke occur in about 30% of patients. These symptoms are often missed and therefore undertreated.2 Long term outcomes vary depending on age, discharge location, other risk factors and response to treatment. Generally, poor outcomes in those of older age, those who are dependent upon someone else, comorbid associations and those who have not shown any improvement with treatment.2 Risk factors for developing post stroke psychosis include previous psychiatric history, alcohol misuse, depression, and anxiety disorder. Other risk factors for stroke include hypertension, hyperlipidemia, Type 2 Diabetes Mellitus, smoking, and others. 2 Treatment may vary depending on primary complaint of patient and caregiver.4

Description: 64-year-old male with PMH of hypertension, OSA and diabetes mellitus presented for paranoia, psychotic symptoms, anxiety, depression, and delusions several months after having a lacunar infarct in the right hemi pons. Patient stated he hired contractors to work on his home and they were entering his home stealing items such as credit cards, bank statements and other valuables. He also believes his neighbors are surveying his land to take it from him. He bought land and a house while using his house as a collateral for the loan and fears the Sherriff will evict them. He often stays up all hours of the night to watch his house and hires someone to watch his house while he is away. He is suspicious of most people and does not trust using any devices, including cellphones or WIFI, due to the fear of being compromised. His wife states his symptoms began after his stroke in February of 2021. On exam, he was anxious with paranoia and a flat affect.

Discussion and Conclusion: Neuropsychiatric conditions are common complications after strokes and have been shown to have negative outcomes in several patients.5 Various post stroke disorders can be linked to location of the lesion. There is limited data on several of these reported locations.6 While there are limited studies and guidelines for treatment for post stoke psychosis, antipsychotics are the most used medications. Patients are typically treated with maintenance therapy.7

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-09

Title: Agenesis of the corpus callosum – Social, cognitive, and psychological associations

Presenting Author/Affiliation: Alison Cline, MS3, UAB Heersink School of Medicine

Additional Author/Affiliation: Janaki Nimmagadda, MD, UAB Heersink School of Medicine, Huntsville Campus, Department of Psychiatry

Introduction/Background: Agenesis of the corpus callosum (AgCC) is a heterogeneous congenital condition characterized by the partial or complete absence of the corpus callosum as seen on prenatal ultrasound or postnatal MRI (1). Prevalence of AgCC is approximately 1 to 7 in 4,000 live births (1). Genetic, environmental, and metabolic causes have been recognized in up to 45% of cases (2).

Description: A 12-year-old female with history of incidentally discovered agenesis of the corpus callosum presented for psychiatric evaluation of anxiety. A year and a half prior to evaluation, she began seeing a counselor for feelings of sadness and anxiety surrounding school. She has struggled with making friends at school and interacting socially with her parents. She makes good grades in all subjects except math. Teachers have reported daydreaming and distraction in the classroom. Parents report that the patient is typically shy and quiet.

Agenesis of the corpus callosum was found on MRI when she was a year old after being evaluated for ocular symptoms. A neurologist ruled out seizure disorder at the time of AgCC diagnosis. She received speech therapy when she was young but has not yet received occupational therapy. There is family history of depression and insomnia in the father and autism in the paternal half-brother.

Discussion and Conclusion: Functioning in individuals with AgCC varies widely. Arithmetic skills are commonly impaired in individuals with AgCC, whereas reading and spelling skills tend to be similar to controls (1). AgCC can also present with intact functioning, and in one study 20% of individuals with AgCC showed average or above average scores on neuropsychological testing (1).

Individuals with AgCC have been shown to exhibit mild to moderate impairment socially, cognitively, and emotionally (3). Studies have reported social deficits in areas such as understanding sarcasm, interpreting metaphors or jokes, and reading emotions from changes in tone or facial expression (3).

When confronted with complex or novel situations, individuals with AgCC experience greater difficulty with tasks measuring visuospatial ability, tactile recognition, and fine motor coordination than their neurotypical counterparts (2). AgCC is also associated with slower cognitive processing speed, particularly when individuals are confronted with larger amounts of information (2).

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-10

Title: Life in the FAS Lane: A Case Report on Living with Fetal Alcohol Syndrome

Presenting Author/Affiliation: Jake Picicci, MS-3, UAB Heersink School of Medicine

Additional Author/Affiliation: Clinton Martin, MD, Regional Chair of Psychiatry, University of Alabama at Birmingham

Introduction/Background: It is well-known that alcohol use during pregnancy is a risk factor for potential harm to the fetus; however, studies show an increasing percentage of pregnant women consuming alcohol in the United States across three study periods (2006-2010, 2011-2013, and 2015-2017), and nearly 4 percent of pregnant women report binge drinking within the past 30 days. Diagnosis of Fetal Alcohol Syndrome (FAS) can be difficult and take years to obtain. As other studies have noted, "it is extremely important to know the long-term consequences of this preventable birth defect." In this case report we discuss an adopted patient lacking classical facial features with a diagnosis of FAS and her comorbid neurobehavioral conditions.

Description: Our patient is a 22-year-old female with Fetal Alcohol Syndrome as well as ADHD, borderline intellectual functioning, major depressive disorder, generalized anxiety disorder and insomnia. Diagnosis of Fetal Alcohol Syndrome was established at age 11 after extensive workup. It was difficult to obtain because of a history of overseas adoption along with the lack of distinctive facial features of FAS. Cognitive effects include struggles with sensory integration, sleep disturbances, and delayed language as well as short term memory and abstract thinking. ADHD has been treated with Vyvanse 60 mg; insomnia is well-controlled with melatonin 5 mg. Our patient is titrating down on Celexa and adding buspirone because of hypervigilance, tachycardia, and excessive worrying at work.

Discussion and Conclusion: Fetal Alcohol Syndrome is an alcohol related developmental disability that is largely preventable. With the continuation of significant alcohol use in pregnancy, patients should be educated on both the short-term and long-term dangers of alcohol consumption while pregnant to prevent this Syndrome. The global prevalence of Fetal Alcohol Spectrum disorder, a broader category including FAS, in children and youth is 7.7 per 1000 population, and 1 in every 13 women who consumed alcohol during pregnancy are estimated to have a child with Fetal Alcohol Spectrum Disorder. Because of the difficulty of diagnosis and variable clinical presentation, the diagnosis of Fetal Alcohol Syndrome should be considered in patients with borderline or impaired intellectual functioning and comorbid psychiatric conditions in whom birth history is unknown.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-11

Title: Efficacy of N-acetylcysteine as add on therapy for bipolar depression

Presenting Author/Affiliation: Madilyn Tomaso, PGY1, UAB Huntsville Family Medicine

Additional Authors/Affiliations: Anupama Yedla, MD, Janaki Nimmagadda, MD, Richard Shelton, MD, and Clinton Martin, MD. UAB-Huntsville Psychiatry Department

Introduction/Background: Bipolar depression is often difficult to manage as many patients do not fully respond to traditional pharmacotherapy. This has led to the study of novel augmentation agents, such as N-acetylcysteine (NAC). NAC is well known for its treatment of acetaminophen overdose and as a mucolytic, but it has also been studied as adjunctive treatment in OCD, major depression, bipolar disorder, and Alzheimer's disease. NAC, which is a precursor to glutathione, is hypothesized to improve mitochondrial functioning and decrease the inflammatory mechanisms in the CNS mediated by microglia. The prominent theory for the pathophysiologic etiology of bipolar disorder is unbuffered free radical generation in the mitochondrial electron transport chain.

Description: Patient is a 35-year-old male with bipolar 2 disorder, generalized anxiety disorder, and OCD who despite maximum medical therapy continued to struggle with depressive mood symptoms. The patient started taking over the counter NAC 3g daily in addition to medical therapy. After 3 months there was no significant change in PHQ-9 scores, but he subjectively reported improvement in depressive symptoms.

Discussion and Conclusion: The quality of evidence for NAC augmentation in bipolar depression is very modest. A review of several meta-analyses showed no statistically significant results and one study was rife with several biases.1,2 One small trial, which also showed no significant difference between placebo and NAC also showed a high placebo response rate.3 There is insufficient data to support that NAC significantly improves depressive symptoms. Further study with larger sample sizes is needed. However, NAC is associated with a low-risk side effect profile and can be found over the counter making it a relatively benign adjuvant to maximum medical therapy.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-12

Title: Postural Orthostatic Tachycardia Syndrome and Anxiety: A Case Report

Presenting Author/Affiliation: Nadia Anabtawi, MS-3, UAB Heersink School of Medicine - Huntsville Campus

Additional Authors/Affiliations: Clinton Martin, MD, Janaki Nimmagadda, MD, Anupama Yedla, MD, Richard Shelton, MD - UABHSOM Huntsville Campus, Department of Psychiatry

Introduction/Background: Postural orthostatic tachycardia syndrome (POTS) is a disorder characterized by excessive tachycardia in the upright position along with lightheadedness, shortness of breath, chest discomfort, palpitations, blurred vision, and mental clouding, but hypotension is not seen. Due to the shared clinical features between POTS and the psychological symptoms of anxiousness and inattention, patients with POTS are often misdiagnosed with an anxiety disorder (1). One study showed that when panic-provoking stimuli were induced, patients with POTS had a greater worsening of somatic symptoms than in patients with panic disorder, showing that anxiety symptoms in POTS are phenomenologically different from panic disorder (2,3). Because patients with POTS are perceived as anxious, it is important to distinguish which symptoms are due to biological versus psychological factors.

Description: This is a 34-year-old female with a ten-year history of anxiety and depression. Her symptoms include generalized anxiety, irritability, and a sense of impending doom. Over the years, she has been prescribed SSRIs, buspirone, bupropion, and oxcarbazepine. Years ago, she also began experiencing episodes of dizziness and heart palpitations upon standing. After an extensive evaluation, she was diagnosed with POTS, which she currently manages by increasing salt intake and hydration.

Discussion and Conclusion: POTS is predominantly seen in young adult women. It is diagnosed through a head-up table tilt-table test, which will show an increased heart rate of ≥30bpm and orthostatic intolerance symptoms (4). Management includes increasing salt and fluid intake, standing up slowly, and using muscle compression devices. Norepinephrine reuptake inhibition has been found to be beneficial in POTS management (5). A combination of bupropion and SSRI therapy can also alleviate symptoms (6,7). While anxiety or panic disorder can mimic POTS, patients with POTS mostly worry about the implications of their somatic symptoms, such as the fear of falling or fainting. The heart rate increase in POTS is caused by the physiological response to venous pooling (8), not by anticipatory anxiety. Although POTS and anxiety disorder have overlapping symptoms, they should be diagnosed and treated as individual disorders. Our case report portrays the presence of POTS and anxiety concurrently. To avoid mislabeling and consequently delaying the treatment of POTS, further medical education is recommended.

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APPA 2022 Spring Meeting Student/Resident Poster Presentation

Abstract 22-1-13

Title: Fen-Phen: Synergistic, but Sinister

Presenting Author/Affiliation: Payton Garlington, MS-3, UAB Heersink School of Medicine

Additional Author/Affiliation: Dr. Clinton Martin, UAB Heersink School of Medicine, Huntsville Campus, Department of Psychiatry

Introduction/Background: Fen-Phen is a combination of Fenfluramine and Phentermine. Fenfluramine is a derivative of amphetamine and has a serotonergic mechanism of action via disrupting vesicular storage and inhibiting reuptake in the synapse. In the 90's, it was used with Phentermine as an off-label appetite suppressant. It was thought that since the two drugs had independent satiety mechanisms in the brain, they would act synergistically, and that lower doses of each drug could be prescribed while minimizing adverse effects. It is well documented that Phentermine enhances the anorectic and weight reduction effects of Fenfluramine. However, it is now thought to also have a synergistic toxic effect on 5-HT axons in the brain.

Description: A 56 year old obese male presented to the psychiatry clinic as a new patient for depression and anxiety. He first experienced depressive symptoms at age 36 while taking Fen-Phen to lose weight. He was hospitalized at age 36 for a GI issue, and states he was taking Fen-Phen for the 2 weeks leading up to this event. During this time, his mood rapidly declined and he experienced new onset severe depression. A few days later, he found himself "staring into the barrel of his gun". This episode prompted him to seek treatment for his depression, which has been well controlled on Bupropion since 2014.

Discussion and Conclusion: Due to the rapid rise and fall of Fen-Phen, and that fact that is has been extensively linked to valvular disease, there is not sufficient research on the psychiatric side effects of this drug combination. However, there is still much to learn from what is available. Combining two drugs that seem to be a perfect match from a physiologic standpoint might seem like a great idea. This may even achieve the desired effect. However, Drugs often interact with one another in mysterious and unanticipated ways. Occasionally, these effects are amplified beyond expectations. Occasionally these effects are paradoxical, and other times the effects are unexpected and inexplicable. Fen-Phen is a Prime example of how drugs can interact in unexpected ways, and why clinicians must be vigilant about prescribing and managing multiple drug regimens in all patients.

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