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DELIRIOUS MANIA OR HYPERACTIVE DELIRIUM? A CASE REPORT

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INTRODUCTION

Delirium is a common clinical disorder, particularly in older adults. The prevalence of delirium reported to be between 9 to 74% in the hospital settings. The three subtypes of delirium are hyperactive, hypoactive, and mixed. Patients with hyperactive delirium become agitated and hypersensitive to the environment, and they also experience active hallucinations and delusions. Among delirium patients the prevalence of hyperactive subtype is 6%–46% (Gibb et al. 2020).

Delirious mania -also known as "Bell's mania- is a mania characterized with expansive mood, grandiosity, emotional lability, psychosis, insomnia, and changes in consciousness and orientation (Fink & Taylor 2001). Delirium symptoms are observed in 5% to 20% of patients with manic episodes. In inpatient psychiatric units, patients with bipolar disorder have the highest prevalence (35.5%) of developing delirium (Ritchie et al. 1996). Taylor and Fink described delirious mania as a subtype of catatonia characterized by catatonic symptoms such as increased motor activity, disorganized speech, confabulation, stereotypy, and posturing. In the literature, this is also called "lethal catatonia" or "malignant catatonia" (Fink & Taylor 2001). Of patients with manic episodes, >25% have symptoms that meet the criteria for catatonia, and >50% of patients with catatonia present with mania symptoms (Detweiler et al. 2009).

Hyperactive delirium and delirious mania are two very similar clinical conditions with acute onset and impaired consciousness. Delirious mania can be distinguished with hyperactive delirium with presenting grandiosity, emotional lability, and catatonic features more frequently. Besides clinical presentations, different brain regions have also been affected in these two disorders (Fink & Taylor 2001). There are limited number of case reports that discuss these two conditions in the literature. In this case report, we discuss the differential diagnosis and treatment of a patient with bipolar disorder, who presented with delirium symptoms.

CASE REPORT

A 70-year-old female patient presented to our hospital with complaints of insomnia, excessive wordiness, irritability, hyperactivity, and treatment refusal for 4 days. The patient had been previously diagnosed with bipolar disorder for 40 years. She had a history of two hospitalizations with manic episodes, has been stable for the last 28 years.

She had multiple myeloma for a year and started receiving dialysis because of chronic renal failure (CRF). After hospitalized twice for stem cell collection, nosocomial infection was occurred. During that the second hospitalization, she started complaining about insomnia and irritability. On the fourth day of hospitalization, she had hyperactivity, incoherent and excessive speech, and drug rejection. Olanzapine 20 mg/day was failed to alleviate her symptoms. Therefore, she referred to our hospital with the symptoms of hyperactivity, incoherent speech, agitation, and inability to cooperate in the dialysis treatment.

In her initial psychiatric examination, the patient was conscious but not able to cooperate due to agitation. Her self-care was declined. She was distracted and confused. She could not answer the questions purposefully, and she had echolalia and clanging associations. She had labile affect; intermittent yelling and crying reactions. The volume and the speed of her speech had increased, and her tone was hyperphonic. Her psychomotor activity had increased, and she had to be restrained because she tried to pull out a central venous catheter. The patient had contractions in the form of opisthotonus and sexually touched a nurse. She had possible visual and auditory

hallucinations. The patient had urinary incontinence since her admission to our clinic.

First of all, olanzapine 10 mg/day treatments were discontinued and haloperidol 20 mg/day/im, biperiden 10 mg/day/im and isotonic solution 500 mg/ day (discontinued on 10th day) were ordered. Cefoperazone 1 g/day vial intravenous for nosocomial infection (discontinued at 15th day), tenofovir 25 mg/day oral treatment for hepatitis B virus and antiphosphate 2100 mg/day for chronic renal failure were continued. She was at a risk of inflicting self-harm and harming others and as a result of this, electroconvulsive therapy (ECT) was initiated on second day. The patient had also no oral intake and had dehydratation. Total parenteral nutrition 1440 ml/day was added on the third day and discontinued on 10th day. After detecting high blood pressure on the third day, internal medicine recommended benidipine hydrochloride 8 mg/day

As a result of laboratory tests, hemoglobin was 8.6 g/dl, two units of erythrocyte suspension was started with the recommendation of the internal medicine. On the third day of hospitalization, dialysis sessions were resumed three times a week because blood urea nitrogen (BUN): 55 ng/dl, creatinine: 7.56 mg/dl, phosphorus (P): 5.1 mg/dl, sodium (Na): 138 mmol/L and potassium (K): 4 mmol/L were measured. After the initiation of dialysis, the patient could not comply with the dialysis treatment because of hyperactivity and agitation, and 15 mg/3 ml of midozolam infusion was administered intravenously during the first three dialysis sessions.

After the administration of propofol by an anesthesiologist before her first ECT, her agitation regressed; after that she became cooperative and oriented. Because the patient's compliance improved after ECT, dialysis sessions were scheduled after ECT.

On fifth day, haloperidol 10 mg/day/iv was decrased and biperien was discontinued because of confusion. She was observed to be confused and agitated especially at nights. When she wasn't confused about the tenth day, she told she had been photographed with the Queen, attended The Queen's Jubilee, her grandchildren had climbed the Mount Everest. Her ex-husband was a high engineer. She had fears that something would happen to his grandchildren. Grandiose and persecution delusions were detected. She underwent cranial MRI after agitation regressed during the follow-up on 15th day. Cranial MRI results revealed a subdural effusion reaching one cm in diameter at its thickest point in the left temporoparietooccipital region. Consequently, a neurosurgeon was consulted and the effusion was found to be chronic, requiring no surgical interventions; follow-up was recommended.

On the 18th day, haloperidol 5 mg/day (iv) was declined and olanzapine 10 mg/day/oral was initiated. On the 20th day, 8th session of ECTwas added and olanzapine 15 mg/day/oral were increased. Haloperidol was discontinued. 8th session of ECT was completed. Oxcarbamazepine which was her last treatment before this episode was increased to 600 mg/day. Olanzapine was continued as 15 mg/day.

She has been still in remission since she was discharged. The patient consented to the use of her data for scientific purposes.

DISCUSSION

The incidence of coexistent mania and delirium symptoms is unknown and considered low in the general psychiatric population. In the present case, some symptoms of our patient suggested delirious mania, whereas the others suggested hyperactive delirium. The fact that delirious mania was not defined separately in the classification systems posed a challenge in the diagnosis process. Because of the unstable general medical condition of the patient, the treatment process was approached dynamically.

Karmacharya et al. suggested the sudden onset of symptoms, incontinence, or inappropriate toilet behavior, undressing attempts or staying naked, and playing with water as the distinguishing features for delirious mania. In addition, female sex, young age, and a diagnosis of bipolar disorder were identified as the risk factors for delirious mania (Karmacharya et al. 2008). The symptoms observed and detected at the time of our patient's first presentation were evaluated. The sex of the patient and the existing diagnosis of bipolar disorder increased the probability of delirious mania.

Taylor and Fink defined delirious mania as a subtype of catatonia (Fink & Taylor 2001). In the present case, the diagnosis of delirious mania took precedence as manic symptoms were accompanied by the presence of catatonic symptoms such as echolalia, clang association, and opisthotonus. Nunes and Cheniaux reported that ECT was initiated after observing catatonic and delirious symptoms in a patient who was hospitalized because of manic episodes and was treated for comorbid pneumonia and the patient benefited significantly from this treatment (Nunes & Cheniaux 2014). In the present case, the initiation of ECT within a short period after hospitalization allowed the patient to adapt to the dialysis treatment and go into remission after eight sessions. In cases where delirium and mania symptoms are concomitant, ECT initiation in an early stage may help patients recover within a short period of time.

Fox and Bostwick reported that the agitation of a patient who did not respond to standard antimanic treatment

was relieved with propofol (Fox & Bostwick 1997). In the present case, the patient became oriented and calmed down after propofol administration during the ECT sessions. Although propofol is not in the first-line treatment regimen for agitated psychiatric patients, it can be beneficial in patients with treatment resistance.

Nicolato et al. reported the successful treatment of delirious mania using the combination of olanzapine and ECT. They warned that atypical antipsychotics may trigger neuroleptic malignant syndrome and even malignant catatonia (Nicolato et al. 2009). The fact that the patient was in remission for many years while on olanzapine made it the treatment of choice.

In a case report, delirious mania symptoms completely disappeared 2 weeks after adding clozapine to the lithium carbonate 900 mg/day treatment (Can et al. 2015). A case of delirious mania reported in 2021 stated that the patient went into remission with lithium treatment (Pereira Herrera & Zimmerman 2021). They suggested that the combination of lithium with benzodiazepines and second-generation antipsychotics is particularly suitable for treating delirious mania owing to its anti-inflammatory properties, potent neuroplastic effects, and wider spectrum of action compared with valproic acid. Because we could not use lithium carbonate because of the presence of CRF comorbidity in our patient, oxcarbazepine, which had been previously beneficial for the patient, was initiated after ECT.

Delirious mania and hyperactive delirium are two different clinical disorders with overlapping symptoms. ECT is beneficial for both clinical conditions. In the differential diagnosis, clinicians should also consider delirious mania, which is not included in the current classification systems, is rare, and is difficult to diagnose and treat.

Ethical Considerations: Does this study include human subjects? YES Authors confirmed the compliance with all relevant ethical regulations.

Conflict of interest: No conflict of interest

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