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Case Report on the Management of Depression in Schizoaffective Disorder, Bipolar Type Focusing on Lithium Levels and Measurement-Based Care

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Abstract

There is little evidence supporting the management of depression in schizoaffective disorder, bipolar type. Managing bipolar depression can be a daunting task for clinicians. Most bipolar patients spend 80% of their time in the depressive phase of illness. In contrast with full-blown mania, patients and family frequently fail to recognize bipolar depression, which may interfere with early diagnosis and treatment. With only a few medications approved for bipolar depression, treatment becomes very challenging. There is evidence to support that schizoaffective depression has a worse outcome than psychotic depression and nonpsychotic depression. We report a patient with schizoaffective disorder, bipolar type with severe depression who responded to an adequate level of lithium and subsequently, on a combination of lithium and quetiapine. Finally, we emphasize the importance of measurement-based care. To our knowledge, this is the first case report focusing on the management of depression in schizoaffective disorder, bipolar type.

Keywords

Depression in schizoaffective disorder; bipolar type; combination therapy; measurement-based care; lithium levels

Case Report

A 19-year-old white woman with a *DSM-IV-TR* diagnosis of schizoaffective disorder, bipolar type was referred by her provider to the Treatment Resistant Affective Disorders clinic at the Mental Health Center, University of New Mexico Hospital.

The patient presented to the clinic with symptoms of depression. The patient was spending most of her time in bed, which affected her social and occupational functioning. She was taking risperidone 3 mg tablet per oral daily for 3 months. After a clinical interview, direct assessment, collateral information from her mother, discussion with the previous provider,

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and a detailed chart review, the clinical team gave a diagnosis of schizoaffective disorder, bipolar type with depression. In addition to depression, she also had mild to moderate auditory hallucinations. The possibility of bipolar I with psychosis and schizoprenia were ruled out.

At the time of presentation, the patient was rated on the Patient Health Questionnaire-9 (PHQ-9), a nine-item scale. This scale was selected because it was suitable to diagnose and quantify severity of depression. In addition, it is briefer than the Hamilton Depression Rating Scale and the Montgomery-Asberg Depression Rating Scale because it exclusively focuses on the nine items of *DSM-IV-TR* Major Depressive Disorder (MDD) diagnosis. This scale assesses all diagnostic criteria listed in the *DSM-IV-TR* to make a diagnosis of MDD, including anhedonia, depressed mood, sleep disturbances, anergia, appetite problems, feelings of worthlessness, trouble with concentration, psychomotor retardation or agitation, and death wishes/suicidal thoughts. Each item is scored from 0 to 3, with 0 indicating “not at all”; 1, “several days”; 2, “more than half the days”; 3, “nearly every day.” Furthermore, it also assesses functional difficulties associated with the symptoms: not difficult at all, somewhat difficult, very difficult, and extremely difficult. The maximum score of PHQ-9 is 27, with a score of 1 to 4 representing minimal depression, 5 to 9 representing mild depression, 10 to 14 representing moderate depression, 15 to 19 representing moderately severe depression, and 20 to 27 representing severe depression. This patient scored a 23 and rated functioning as “extremely difficult.”

Patient History

The patient had her first psychotic break (auditory hallucinations, disorganized behavior, paranoia, and vandalizing property) at the age of 18 years. She also exhibited manic features after having full-blown psychotic features. In one year, she was hospitalized three times for psychosis and mania. She had one previous suicide attempt by driving fast and recklessly. She had no history of drug and alcohol use except occasional and very minimal use of marijuana. The patient had no family history of mental illness except for a great grandmother with schizophrenia. Her parents were separated, and divorce was pending. She was in college when she had her first psychotic episode and quit college 6 months before her presentation because of poor mental health. She is currently living with her boy-friend and his parents. The patient was on olanzapine 15 mg and divalproex 750 mg (level 125 µg/ml) and was also on a combination of olanzapine 7.5 mg and aripiprazole 20 mg. These medications were discontinued because of lack of effectiveness, and 3 months before presentation, she was started on risperidone.

Treatment

All laboratory values including thyroid and renal function tests had normal findings, and serum pregnancy test was found to have negative results. Considering her manic episodes and risk for suicide, lithium was selected over lamotrigine (Yatham et al., 2009). The patient was started on lithium 600 mg orally at bedtime. Risperidone was increased from 3 mg to 4.5 mg after ruling out secondary negative symptoms, and eventually, the dose was tapered down to 4 mg once psychosis remitted. The patient’s lithium level was 0.4 mEq/l on 600 mg

one month after initiation. Lithium was increased to 900 mg to increase the level. A lithium level was repeated before the next follow-up visit, which was 0.8 mEq/l. The patient and her mother attended the depression/bipolar/psychosis group for psychoeducation on a weekly basis.

During her follow-up 10 weeks after the initial treatment with lithium, her PHQ-9 score dropped from 23 to 5. Subjectively, the patient felt much better. The patient reported to feeling better 2 weeks after increasing lithium from 600 mg to 900 mg daily. This rapid response to depressive symptoms is suggestive that it was depression and not primary negative symptoms caused by a schizoaffective disorder diagnosis.

Three weeks after this, she was briefly hospitalized for 2 days because of the worsening of auditory hallucinations. This was thought to be the result of attending the memorial service of her ex-boyfriend and also of a lithium level of 0.3 mEq/l upon admission, despite the patient's claim of medication adherence.

Eighteen days later, after she was discharged from the hospital, she called over the telephone and stated that her depression was becoming worse despite having a lithium level of 0.8 mEq/l. A PHQ-9 was done over the telephone, and the score was 13. Other pharmacological options were discussed, including adding a selective serotonin reuptake inhibitor (SSRI)/bupropion (Alda and Yatham, 2009; Sachs et al., 2007; Salvi et al., 2008), switching from lithium to lamotrigine, and adding lamotrigine or pramipexole. Finally, risperidone was cross-tapered to quetiapine, which is approved by the Food and Drug Administration for bipolar depression as a monotherapy (Yatham et al., 2009) and schizoaffective disorder, which was her primary diagnosis. Quetiapine 100 mg was started and gradually titrated to 400 mg daily. Risperidone 4 mg was discontinued. She was seen again 2 weeks after reaching a dose of 400 mg daily of quetiapine. Her PHQ-9 score dropped from 13 to 4 after starting quetiapine, whereas her lithium dose remained constant.

During her treatment course, there have been no significant changes in metabolic parameters including glucose, lipids, thyroid, and renal functions. Her waist circumference had increased from 29 to 31 inches (normal, <35 inches for women) even before starting quetiapine. There has been no change in waist circumference after starting quetiapine.

Four months after her initial presentation and after she had stabilized on quetiapine and lithium, the patient has improvements in functioning including going to the gym and movies and hanging around with her friends and boyfriend. One month later, she resumed college classes with the goal of obtaining an associate degree.

Discussion

This case report highlights the management of a few common challenges faced by clinicians in daily practice. First, understanding and diagnosing depressive symptoms in psychotic patients is challenging. Treatment options differ depending on the origin and presentation of these symptoms. A careful history is needed to ascertain and differentiate schizoaffective disorder, bipolar type with depression from other presenting symptoms such as negative symptoms or psychotic depression. Afterward, we illustrate the importance of direct

objective measurement of depression to aid in treatment. Third, we show that the combination of antipsychotic and mood stabilizer treatment may be effective in patients with this diagnosis. Lastly, we point out the importance of nonpharmacological management and support of family through psychoeducation.

In the 24-month National Institute of Mental Health Collaborative Study of the Psychobiology of Depression (Coryel et al., 1984), patients with schizoaffective disorder, depressive type ($n = 24$) had worse outcomes than those with psychotic depression ($n = 56$) and nonpsychotic depression ($n = 274$). Unfortunately, this study did not have subjects with schizoaffective disorder, bipolar type. To our knowledge, there is only one randomized double-blind clinical trial ($n = 177$; depressed patients on olanzapine, 38; depressed patients on haloperidol, 15) published on the management of depression in people with schizoaffective disorder, bipolar type. In this manufacturer-sponsored study (Tohen et al., 2001), people who were on olanzapine had greater improvements in depression scores than did those who were on haloperidol ($p = 0.002$). However, olanzapine/fluoxetine combination is approved for bipolar depression and not as a monotherapy. In the patient in our case report, the combination of antipsychotic medication and SSRI was not considered a good choice because fluoxetine may induce a switch to mania and because the patient had recent hospitalizations for manic episodes. In addition, olanzapine was previously discontinued because of lack of effectiveness, so other antipsychotics were tried.

Conclusions

The purpose of this case report is to highlight the unique case of the management of depression in schizoaffective disorder, bipolar type. Therefore, this first case report fills a gap in the literature. We emphasized the importance of checking lithium levels and to maintain a level of 0.8 to 1.2 mEq/l for antidepressant therapeutic effectiveness. The lithium level is a guiding map and a boon to clinicians as well as to our patients. However, in this patient, it is important to note that despite having a lithium level of 0.8 mEq/l, her depression worsened, which responded to a combination of lithium and quetiapine. Finally, it is extremely important to quantify depression in the clinic and to document progress/worsening, especially with complicated patients.

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