Case Series

Pattern of outcome of management of bipolar-1 disorder in manic phase during hospital stay: a case series

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ABSTRACT

Background: *Most of the unmanageable patients of bipolar-1 disorder need hospital admission during manic episode. Pharmacological management is challenging because of severity of condition, presence of co-morbidity, need for poly-pharmacy, side effects of medication etc. The purpose of this article is to evaluate the treatment pattern of hospitalized bipolar-1 manic patients and effectiveness of drug combinations in controlling manic symptoms and reducing hospital stay.*

Methods: *This is a case series on 7 admitted bipolar-1 manic patients, who were treated within last 6 months at Department of Psychiatry, BSMMU. Young Mania Rating Scale (Y-MRS) was applied just after admission and before discharge. All patients were given psycho-education and follow up plan.*

Results: *Average hospital stay was around 30 days (maximum 73 days and minimum 7 days). Based on Y-MRS score, 2 cases were found to have severe symptom, other 5 cases were categorized as having moderate symptoms on admission. The score on discharge showed that all patients achieved remission from acute symptoms. Patient with first/second episode, younger age with no family history of mental illness tend to respond better with single agent (first/second generation antipsychotic) with less hospital stay. Patient with multiple episodes, history of non-compliance and positive family history were correlated to severe episode, need for polypharmacy and had prolonged hospital stay.*

Conclusion: *Treatment of acute mania should be personalized in respect to several clinical criteria, which include manic symptoms, course specifiers and patient factors.*

Key words*: Bipolar-1 disorder, mania, rapid cycling.*

BIRDEM Med J 2023; 13(2): 103-106

DOI: https://doi.org/10.3329/birdem.v13i2.66013

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Received: January 14, 2023

Revision received: April 3, 2023

Accepted: April 18, 2023

INTRODUCTION

Psychiatric disorders constitute major public health burden that contribute around 13% of the global burden of disease. It is ranked as the 17th leading source of disability among all diseases worldwide.[1] Bipolar disorder has the highest suicide rate among all psychiatric conditions, being 20–30 times higher than in the general population.[2] Manic episodes affect overall more than 1% of the general population. Heritability estimate of bipolar disorder is about 85% which is highest among all psychiatric disorders. Increasing number of episode is associated with repeated hospital admission, poor response to medication and prolonged hospital stay. Lifetime prevalence of bipolar mood disorder in Bangladesh is 0.4 percent.[3]As Bangladesh is a six season

country, seasonal pattern is also an important factor in our context.

Pharmacological options to treat manic episode involve lithium (classic mood stabilizer), anti-convulsants, antipsychotics, benzodiazepines and some other hormones and natural products. The treatment of the acute manic phase should consider the maintenance treatment and course specifiers, such as the number of episodes, predominant polarity, the presence of rapid cycling, the risk of counter-polar switch, making the pharmacological treatment a complex choice. Safety/ tolerability issues in the short and long-term treatment, the presence of psychiatric/medical comorbidities and non-compliance issues further complicate the scenario.[2]

The aim of this case series is to assess clinical factors and patient's characteristics that may influence the treatment choice in mania.

CASE SERIES

Case 1

A 60-year-old woman hailing from rural background got admitted in BSMMU with manic symptoms for 3 months. She had positive family history of bipolar disorder. She experienced multiple manic episodes, approximately 5-6 times in the past 40 years with history of hospitalization for several times, which were not well documented. During previous episodes she has been treated with various antipsychotics to which her response were variable. She did not respond to either risperidone 4 mg or quetiapine 100 mg, none of which were given for optimum doses or duration. During subsequent episodes, she was prescribed olanzapine 10 mg for 9 months to which she responded partially but the medication was discontinued. Two years back, during her last episode, she has been prescribed aripiprazole 10 mg, which she took for about a year, response was partial and again medication was discontinued. Throughout her poorly documented medication history, it is evident that she had poor treatment adherence, none of the above mentioned drugs were given for optimum doses or duration.

After she was admitted in BSMMU, she was started on paliperidone 6 mg extended release formulation, along with sodium valproate 1000 mg which was gradually increased up to 1500 mg. With this dose her mood symptoms improved over the course of her stay of just 10 days. After admission her YMRS score was 34 which came down to 12 during discharge which depicts the stage of remission. No notable adverse effects were reported. She along with family members were given proper psychoeducation and a plan for future follow up.

Case 2

A 52-year-old female housewife from rural background got admitted with manic symptoms for 15 days. She had positive family history of psychosis. She had a single manic episode 18 years back for which she was treated accordingly but treatment documents were unavailable.

Soon after admission she was started on paliperidone 6 mg along with sodium valproate 1000 mg. Dose of paliperidone was increased to 9 mg after a week, keeping sodium valproate on the same dose and adding sedatives at night for better sleep. Improvements in mood and overall symptoms was seen after 34 days of hospital stay. Score on YMRS was 38 and 12 during admission and discharge respectively. No adverse events were recorded. She was discharged with advice for follow up.

Case 3

A female patient of 20 years of age from rural background, admitted with manic symptoms for 15 days. There was history of cancellation of a marriage proposal for which she was quite stressed and was sleeping badly. She had history of depressive episode 1 month back as reported by her mother. Her father had history of similar illness.

Olanzapine 20 mgwas started along with sodium valproate 1000 mg. As the response was not satisfactory, olanzapine was replaced by risperidone 8 mg and dose of sodium valproate was increased to 1500 mg. As her manic symptoms still could not be controlled, paliperidone 6 mg extended release formulation was started after omitting risperidone. Improvement of mood symptoms was observed over next few days and dose increased to 9 mg with addition of clozapine 25 mg once daily at night. Finally patient was able to sustain clinical improvement over next few weeks with paliperidone 9 mg, sodium valproate 1500 mg and clozapine 25 mg. During admission her YMRS score was 34 which later decreased to 10 with marked improvement of general well being. No major side effects were reported

throughout the course of hospital stay. Relevant investigations showed no abnormality. With proper psychoeducation to patient and caregiver she was discharged to home with a plan for regular follow up.

Case 4

A 43-year-old male businessman hailing from urban background got admitted with manic symptoms for 10 days. He had positive family history of bipolar disorder. Patient was treated for alcohol use disorder 4 years back, no evidence of recent substance use was found. He had 2 manic episodes in last 2 years, each time he was hospitalized. He was prescribed olanzapine 10 mg along with sodium valproate 1000 mg at the time of his last episode, both drugs responding completely in reaching remission. But while on medication, patient experienced severe stress and sleep deprivation over a financial matter ultimately leading him to his 3rd episode despite being on medication.

Soon after admission he was started on paliperidone 6 mg extended release formulation and dose of sodium valproate was increased up to 1500 mg. Patient showed notable improvement of core symptoms just within 12 days of hospital stay. YMRS score was 31 and 11 during admission and discharge respectively. No adverse events were recorded. Patient was advised for discharge with future follow up plan.

Case 5

A 22-year-old female pregnant housewife from rural background got admitted with manic symptoms for 1 month. There is no family history of psychosis. She had a single manic episode 1 year back for which she did not seek any treatment but resolved spontaneously.

She was started on haloperidol 15 mg and procyclidine 10 mg. Patient showed improvement in mood and overall symptoms just after 1 week of hospital stay. Severity of current episode was assessed by YMRS, on which she scored 28 and came down to 9 during discharge. No adverse events were recorded. She was discharged with advice for follow up.

Case 6

A 18-year-old housewife from rural background got admitted with manic symptoms for 2 months. There is no family history of psychosis. This is her first episode.

She was started on olanzapine 10 mg. Patient showed improvement in manic symptoms in 25 days of hospital stay. Score on YMRS was 26 during admission and 9 during discharge. No adverse events were recorded. She was discharged with advice for follow up.

Case 7

A male patient of 22 years, unmarried, diploma student from rural background, admitted with symptoms of mania for last 2 days. There was history of bullying from his friends prior to the onset of his symptoms. His mother gave history of another manic episode 7 years back for which he needed hospitalization. He discontinued medication after getting apparently well. His current episode was severe enough to necessitate restrain and rapid tranquilization in a general hospital. He got admitted to BSMMU 15 days after starting his symptoms.

After admission, he was found to develop EPSE following rapid tranquilization with was well managed on subsequent days with anticholinergic drugs and ropinirole. Olanzapine 10 mg and sodium valproate 1000 mg were given initially. As the response was not satisfactory olanzapine was replaced by haloperidol 15 mg. As the residual manic symptoms were still troublesome, clozapine was instituted considering the case as a refractory mania. With proper work up and slow titration, dose of clozapine was increased to 100 mg. At that stage of treatment, patient was able to achieve remission and sustain it over next few weeks. After 74 days of in patient stay, his YMRS score came down to 8 which was found to be 42 during admission. After sustained improvement in mood symptoms patient was discharged with proper psychoeducation and advice for regular follow up.

DISCUSSION

The treatment of acute mania during hospital stay presents very important challenges, especially when it comes to the issue with achieving remission and preventing relapse with medications of better safety/ tolerability profile. Expectation of caregivers for rapid improvements after admission also poses further strain on this challenge. Although there are a number of pharmacological options available to treat this condition, the gap between evidence-based treatment and clinical practice is still considerable. Chances of adverse drug reactions are more as majority of patients need combination pharmacotherapy to achieve remission.

Of all the 7 cases described above category of medications used are antipsychotics, mood stabilizer and sedatives. Among antipsychotic medications, paliperidone (6-9 mg) was found effective in controlling the symptoms of mania in 4 out of 7 cases as an adjunct to mood stabilizer, specially the patients who had a positive family history, history of medication non-compliance and who experienced multiple episodes. This finding is consistent with previous clinical trials done with paliperidone in treatment of acute mania.[4] As evidenced by YMRS score all of them were able to sustain the initial improvement and they were continued as discharge medication. No major adverse events were reported throughout the course of treatment. Clozapine at low dose (25-100 mg) was found to be a good option as an augmenting agent in 2 cases, as evidenced in previous similar findings.[5] Two patients responded to antipsychotic monotherapy, both of them were young females and came with first episode.

Among mood stabilizers, sodium valproate (1000-1500 mg) was proved to be effective in controlling the mood symptoms as combination with antipsychotics in 5 out of 7 patients. As mentioned in the available guidelines its rapid onset of action made it an ideal agent to be chosen for managing manic symptoms during hospital stay. Consistent with evidence, antipsychotic-mood-stabilizer combination proved to be beneficial for patients presenting with more severe symptoms, history of multiple episodes resulting in prompt control of manic symptoms.[6] All patients were given benzodiazepines which effectively restored sleep and helped to manage acute agitation.

Family history were found positive in 5 cases. History of stressful life event preceeding the onset of illness were found in 5 cases. No seasonal pattern was identified in any of the cases, though it is commonly found in this population.

Multiple episode, medication non-compliance, positive family history were seen to be correlated with more severe episode and prolonged hospital stay in most of the cases which is compatible with the existing finding. Treatment non-adherence was found to be one of the principal factors that led to relapse and multiple hospital admission in all the cases that presented with multiple episodes, which is a congruent finding for bipolar patients who usually tend to be non-adherent.[7] Once acute mania has remitted, prevention strategies such as behavioral and psychoeducation approaches were implemented to lower the relapse risk.

Limitations

It was a relatively short duration study (6 months) with smaller number of patients. Further research (double blind/case-control study) can be done over longer time period and with larger number of patients to support the findings.

Authors' contribution: SA, AA, NJT contributed to conception and design, managed the cases, drafted of the paper, contributed to critical revision of the paper. SA supervised the research. All authors read and approved the final manuscript for submission.

Consent: Informed written consents were taken from legal guardian of all patients. After gaining insight, patients were also informed about the study and consent taken thereafter.

Conflict of interest: Nothing to declare.

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