

# Older-age bipolar disorder: A case series



JPAGET RE PHOTOS

## Age-related variations in presentation, treatment response may warrant a different approach

**A**lthough the peak age of onset of bipolar disorder (BD) is between 20 and 40 years,<sup>1</sup> some patients develop BD later in life. The International Society for Bipolar Disorders Task Force has classified the illness into 3 categories:

- early-onset bipolar disorder (EOBD), in which the first manic episode occurs before age 40
- late-onset bipolar disorder (LOBD), in which the initial manic/hypomanic episode occurs after age 50
- older-age bipolar disorder (OABD), in which the first manic/hypomanic episode occurs after age 60.<sup>2</sup>

OABD represents 25% of the population with BD.<sup>3</sup> OABD differs from EOBD in its clinical presentation, biological factors, and psychiatric and somatic comorbidities.<sup>4</sup> Studies suggest OABD warrants a more extensive workup to rule out organic causes because symptoms are often attributable to a variety of organic etiologies.

This article describes 3 cases of OABD, including treatments and outcomes. We discuss general treatment recommendations for patients with OABD as cited in the literature. Further research is needed to expand our ability to better care for this unique population.

### CASE 1

Mr. D was a 66-year-old African American male with no psychiatric history. His medical history was significant for hypertension, poorly controlled diabetes mellitus, and chronic kidney

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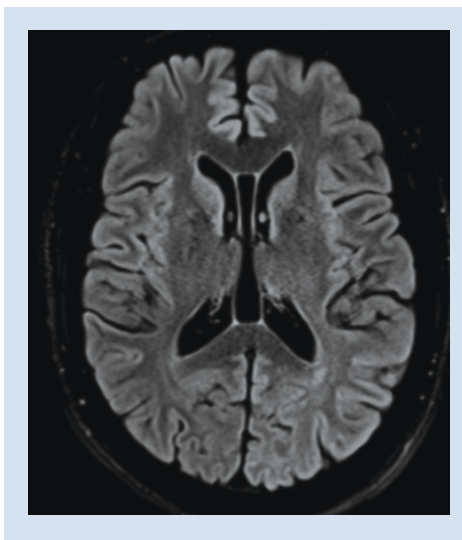
**Figure 1**

**Case 1: CT scan of the head reveals aging changes in the frontal lobe (arrows)**



**Figure 2**

**Case 2: MRI of the brain shows chronic microvascular ischemic change**



disease. One year ago, he was diagnosed with cholangiocarcinoma, and underwent uncomplicated right trisegmentectomy, resection of extrahepatic biliary tree, and complete portal lymphadenectomy, with Roux-en-Y hepaticojejunostomy to 2 intrahepatic ducts. He presented to the emergency department (ED) with disorganized behavior for 3 weeks. During that time, Mr. D reported increased distractibility, irritability, hyper-religiosity, racing thoughts, decreased appetite, and decreased need for sleep. There was no pertinent family history.

On mental status examination, Mr. D was agitated, noncooperative, and guarded. His speech was loud and pressured. Mr. D was distractible, tangential, and goal-directed. His Young Mania Rating Scale (YMRS) score was 31, which is highly indicative of mania.<sup>5</sup> Computed tomography (CT) scan of the head (**Figure 1**) showed age-related changes but no acute findings. Mr. D was diagnosed with unspecified bipolar disorder and admitted. He was started on divalproex sodium extended release, which was titrated to 1,500 mg/d, and olanzapine, 15 mg nightly, with subsequent improvement. At discharge, his YMRS score was 9.

**CASE 2**

Mr. M was a 63-year-old African American male with no psychiatric history and a medical history significant for hypertension and hypercholesterolemia. He presented to the ED with behavioral changes for 2 weeks. During this time, he experienced decreased need for sleep, agitation, excessive spending, self-conversing, hypersexuality, and paranoia. His family history was significant for schizoaffective disorder, bipolar type.

A mental status examination revealed pressured speech, grandiose delusions, hyper-religiosity, flight of ideas, looseness of association, auditory hallucinations, and tangential thought processes. Mr. M's initial YMRS score was 56. A CT scan of the head revealed no acute abnormality, but MRI of the brain (**Figure 2**) showed chronic microvascular ischemic change. Mr. M was diagnosed with bipolar I disorder and admitted. He was started on quetiapine extended release, which was titrated to 600 mg nightly. Divalproex sodium extended release was titrated to 1,500 mg nightly, with subsequent improvement. At discharge, his YMRS score was 15.

**Clinical Point**

**Comorbidity is much more common in older-age bipolar disorder than in early-onset bipolar disorder**



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Older-age bipolar disorder

### Clinical Point

Psychotic symptoms are less common or less severe in older-age bipolar disorder

**Figure 3**  
Case 3: CT scan of the head reveals mild aging changes (arrows)



### CASE 3

Ms. F was a 69-year-old White female with no psychiatric history. Her medical history was significant for hypertension, osteoarthritis, and stage III-C ovarian adenocarcinoma with a debulking surgical procedure 5 years earlier. After that, she received adjuvant therapy with paclitaxel and carboplatin, which resulted in a 10-month disease-free interval. Subsequent progression led to cycles of doxorubicin liposomal and gemcitabine. She was in remission until 1 week earlier, when a CT scan of the abdomen/pelvis showed recurrence. She presented to the hospital after disrobing in the street due to hyper-religiosity and divine instruction. She endorsed elevated mood and increased energy despite sleeping only 2 hours daily. Her family psychiatric history was significant for her daughter's suicide attempt.

A mental status examination revealed disorganized behavior and agitation. Her speech was loud and pressured. She described a "great" mood with congruent affect. Her thought process was circumstantial and illogical. She displayed flight of ideas, grandiose delusions, and paranoia. Ms. F's initial YMRS score was 38. Vital signs were significant for an elevated blood pressure of 153/113 mm Hg. A CT scan of the head (**Figure 3**) showed age-related change with

no acute findings. Ms. F was admitted with a diagnosis of bipolar I disorder and prescribed olanzapine, 2.5 mg nightly. Due to continued manic symptoms, olanzapine was discontinued, and Ms. F was started on quetiapine, 300 mg nightly, with subsequent improvement. At discharge, her YMRS score was 10.

### Differences between EOBD and OABD

BD has always been considered a multi-system illness; however, comorbidity is much more common in OABD than in EOBD. Comorbid conditions are 3 to 4 times more common in patients with OABD.<sup>2</sup> Common comorbidities include metabolic syndrome, allergic rhinitis, arthritis, asthma, and cardiovascular disease.

Compared with younger individuals, older patients with BD score lower on the YMRS in the areas of increased activity-energy, language-thought disorder, and sexual interest.<sup>6</sup> Psychotic symptoms are less common or less severe in OABD. Although symptom severity is lower, the prevalence of rapid cycling illness is 20% higher in patients with OABD.<sup>6</sup> OABD is less commonly associated with a family history.<sup>7</sup> This may suggest a difference from the popular genetic component typically found in patients with EOBD.

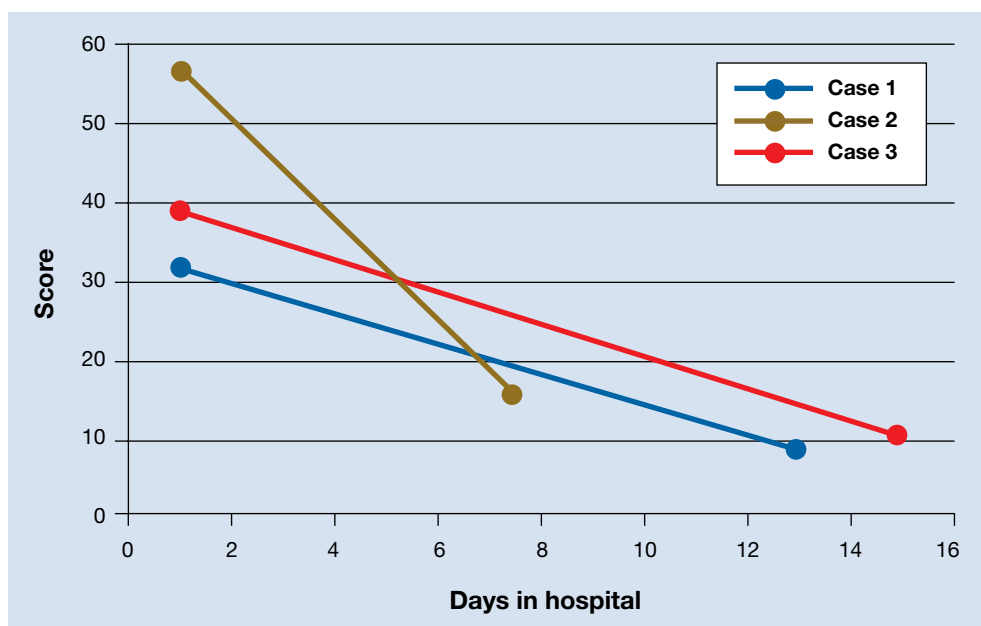
Cognitive impairment is more commonly found in OABD. Patients with OABD suffer from neuropsychological deficits even during euthymic phases.<sup>8</sup> While these deficits may also be found in patients with EOBD, compared with younger patients, older adults are more susceptible to accelerated decline in cognition. OABD can first present within the context of cardiovascular or neuropsychological impairment. It has also been linked to a greater prevalence of white matter hyperintensities compared with EOBD.<sup>9,10</sup>

### Treatment is not specific to OABD

No established treatment guidelines specifically address OABD. It has been treated similarly to EOBD, with antipsychotics, mood stabilizers, antidepressants, and electroconvulsive therapy (ECT). Although lithium is effective, special precautions should be

Figure 4

### Case series patients: Improvement in Young Mania Rating Scale scores



taken when prescribing it to older adults because these patients may be more sensitive to adverse events.<sup>11</sup> Drug–drug interactions may also be more likely due to concomitant use of medications for common medical issues such as hypertension.

Treatment with antipsychotics in older patients carries risks. Use of antipsychotics may result in higher rates of morbidity and mortality related to cardiovascular, metabolic, and infectious etiologies. Some literature recommends the use of antipsychotics for OABD; however, the potential benefits must outweigh the risks.<sup>6</sup> Monotherapy followed by combination therapy has demonstrated effectiveness in OABD.<sup>11</sup> Because symptoms of OABD are often less severe, it may be best to avoid maintenance antipsychotic therapy when possible. With a higher prevalence of depressed mood following manic episodes, use of antidepressant therapy is common in OABD.<sup>6</sup> ECT should be considered for patients with treatment-refractory BD.<sup>11</sup>

#### Lessons from our case series

Our case series included 3 patients with OABD. These patients' comorbid conditions included hypertension,

Table

#### Older-age bipolar disorder: Clinical pearls

Rapid cycling illness, cognitive impairment, and comorbid general medical conditions are more commonly associated with OABD

OABD can first present within the context of cardiovascular and neuropsychological impairment

Special precautions should be taken when using antipsychotics to treat patients with OABD because use of these medications may result in higher rates of morbidity and mortality related to cardiovascular, metabolic, and infectious etiologies

Using precaution when prescribing lithium or carbamazepine because patients with OABD may be more sensitive to adverse effects. In addition, drug–drug interactions may be more common due to concomitant use of medications for general medical issues, such as hypertension

OABD: older-age bipolar disorder

hypercholesteremia, and diabetes mellitus. Two patients had a history of cancer, but there was no metastasis to the brain in either case. However, we considered the possibility of structural changes in the brain or cognitive impairment secondary to cancer or its treatment. A literature review

#### Clinical Point

Patients with older-age bipolar disorder suffer from neuropsychological deficits even during euthymic phases



## Older-age bipolar disorder

### Clinical Point

Although lithium is effective, special precautions should be taken in older adults because they are more sensitive to adverse events

### Related Resources

- Carlino AR, Stinnett JL, Kim DR. New onset of bipolar disorder in late life. *Psychosomatics*. 2013;54(1):94-97.
- Sajatovic M, Kales HC, Mulsant BH. Prescribing antipsychotics in geriatric patients: Focus on schizophrenia and bipolar disorder. *Current Psychiatry*. 2017;16(10):20-26,28.

### Drug Brand Names

Carbamazepine • Carbatrol, Tegretol	Gemcitabine injection • Gemzar
Carboplatin • Paraplatin	Lithium • Eskalith, Lithobid
Divalproex sodium • Depakote	Olanzapine • Zyprexa
Doxorubicin liposome injection • Doxil	Paclitaxel injection • Abraxane
	Quetiapine • Seroquel

confirmed that adult patients treated for noncentral nervous system cancer experienced cancer-related cognitive impairment (CRCI).<sup>12</sup> New research suggests that CRCI could be related to altered neuronal integrity along with a disturbance of brain structure networks that process and integrate information.<sup>13</sup>

We used the YMRS to compare symptom severity and treatment response (*Figure 4, page 27*). Two patients were treated with atypical antipsychotics with a mood stabilizer, and the third patient was prescribed an antipsychotic only. We avoided lithium and carbamazepine as mood stabilizers due to their adverse effect profiles and potential for drug–drug interactions. Each patient responded well to treatment without adverse events.

Future studies are needed to clearly define the safest and most effective treatment guidelines in patients with OABD. We believe that OABD may require the development of a unique treatment algorithm due to the high likelihood of medical comorbidity and age-related variations in treatment response.

## Bottom Line

Compared with younger patients with bipolar disorder (BD), those who develop BD later in life may be more likely to have rapid cycling, medical comorbidities, and cognitive impairment. Older patients with BD also may be more likely to experience adverse effects of the medications commonly used to treat BD, including antipsychotics, lithium, and carbamazepine.

### Etiology of OABD may be different

OABD may be associated with manic presentations and vascular risk factors. MRI imaging that found more white matter hyperintensities and cerebrovascular lesions in patients with OABD compared with younger patients provides evidence of possible differing etiologies.<sup>14</sup> Cassidy and Carroll<sup>15</sup> found a higher incidence of smoking, hypertension, diabetes mellitus, coronary heart disease, and atrial fibrillation in patients in the older onset group. Bellivier et al<sup>16</sup> proposed 3 subgroups of bipolar I disorder; the late-onset subgroup's etiology was multifactorial. EOBD and OABD subgroups have similar gender ratios,<sup>17</sup> first-episode descriptions, and alcohol use rates; however, OABD subgroups have more neurological comorbidity, lesser severe psychosis, and less genetic predisposition.

Although 25% of BD cases are late onset,<sup>3</sup> there is still little consensus regarding subgroups and etiological causes. Therefore, additional research specifically focusing on vascular risks may provide much-needed information. Controlling and mitigating vascular risks in OABD may affect its development and course. Despite debated etiologies, the treatment of BD remains consistent, with anticonvulsants preferred over lithium in older individuals.<sup>18</sup>

The *Table (page 27)* summarizes clinical pearls about the features and treatment of OABD.

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### Clinical Point

**ECT should be considered for older patients with treatment-resistant bipolar disorder**