Ms. R develops severe catatonia after being hospitalized with agitation, delusions, and hallucinations. A benzodiazepine does not help. How would you treat her?
puts them at risk for aspiration. Those with immobility might not move to urinate or defecate. During the first half of the 20th century, catatonia was documented in up to 50% of patients with schizophrenia. Since then, the incidence of catatonia has decreased, possibly the result of advances in psychopharmacology.

Two days after Ms. R develops catatonia, we transfer her to a local hospital for evaluation to rule out a medical cause of her catatonic symptoms.

EVALUATION  No medical cause

At the hospital, physical examination, electroencephalography, drug screening, and liver and thyroid function tests are within normal limits, eliminating an organic cause of Ms. R’s catatonia. MRI of the head shows a 3-mm mass at the base of the infundibulum, which is unchanged from a prior MRI. Ms. R received 7 mg total of lorazepam over 4 days without relief of her catatonia. She is transferred back to our facility.

What step would you try next?

a) switch to a different benzodiazepine
b) add risperidone to lorazepam
c) add a different antipsychotic to lorazepam
d) administer electroconvulsive therapy (ECT)

The authors’ observations

Benzodiazepines and ECT are effective treatments for catatonia. Benzodiazepines are considered first-line treatment because of their efficacy and favorable side-effect profile. Lorazepam frequently is used to treat catatonia in the short term. Long-term use of benzodiazepines, however, is associated with tolerance, addiction, and rebound phenomena.

Patients with catatonia who do not respond to benzodiazepines may benefit from ECT. ECT can cause serious side effects, however, including memory impairment, confusion, delirium, and cardiac arrhythmias.

Atypical antipsychotics may alleviate motor symptoms of catatonia by virtue of their 5-HT2A receptor antagonistic action.
In 2 case reports, risperidone successfully treated catatonia.\textsuperscript{4,11} Kopala et al\textsuperscript{11} found risperidone, 4 mg/d, was effective in treating severe, first-episode catatonic schizophrenia in a neuroleptic-naive young man. This efficacy was sustained over a 3.5-year outpatient follow-up.

In another report, risperidone, 6 mg/d, effectively treated catatonia and prevented further episodes in a patient with schizophrenia who developed severe catatonia after receiving adequate treatment for Lyme disease with encephalitis.\textsuperscript{4} Two relapses of catatonic syndrome occurred when risperidone was reduced to 2 mg/d, and remission occurred after risperidone was increased to 6 mg/d. Risperidone’s antagonistic activity of the 5-HT2/D2 receptors may be relevant to its anticatatonic effect.\textsuperscript{12}

Other atypical antipsychotics—ziprasidone and olanzapine—also have been shown to be effective in treating catatonia. Levy et al\textsuperscript{13} reported successful treatment of a catatonic state (with catalepsy, stupor, and mutism) using intramuscular ziprasidone followed by oral ziprasidone. A data analysis by Martenyi et al\textsuperscript{14} showed olanzapine to be effective in treating non-specific signs and symptoms of catatonia, as measured by the Positive and Negative Syndrome Scale.

### Related Resources

- Schedules for Clinicians’ Interview in Psychiatry (SCIP). Available from Ahmed Aboraya, ahmedaboraya@wvdhhr.org.

### Drug Brand Names

- Haloperidol - Haldol
- Lithium - Eskalia, Lithobid
- Lorazepam - Ativan
- Olanzapine - Zyprexa
- Ziprasidone - Geodon

### Disclosure

The authors have no financial relationship with any company whose products are mentioned in this article or with manufacturers of competing products.

### Bottom Line

Benzodiazepines and electroconvulsive therapy are effective treatments for catatonia but each carries the risk of adverse effects. Case reports suggest risperidone is effective in short- and long-term treatment of catatonia and can be added to benzodiazepines in patients with delusions or hallucinations.
The authors' observations

This is the third case report in the literature to show that risperidone is effective in short- and long-term treatment of catatonia.\textsuperscript{4,11} Although Ms. R's initial response can be attributed at least partially to lorazepam—which is known to be effective in treating catatonia—she continued to show improvement while taking risperidone only and remained free from catatonic symptoms for 15 months, until she was readmitted for reasons unrelated to catatonia.

We recommend using risperidone to treat catatonia in patients who do not respond to a benzodiazepine, especially those with other psychotic symptoms such as delusions or hallucinations. While administering risperidone, watch for long-term side effects, such as hyperlipidemia, weight gain, and diabetes. For catatonia in patients who cannot tolerate risperidone, consider olanzapine or ziprasidone.

References