The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided. The patient described in this column is a composite with characteristics of several real patients.

Treatment of first-episode psychosis in patients with autism-spectrum disorder and intellectual deficiency

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An 18-year-old woman diagnosed at a young age with Tourette syndrome, intellectual deficiency (ID) and autism-spectrum disorder (ASD) was referred to the emergency department for new-onset paranoid delusions and auditory hallucinations.

The patient reported experiencing perceptual abnormalities and delusions over the past 2 months, which led to suicidal ideations and aggressive impulses. She reported having auditory hallucinations in the form of negative comments that she "is worthless" and that she "should kill herself." She reported that her hallucinations were more intense when she was in public spaces. She no longer used public transportation, as she frequently hallucinated laughter and insults about her appearance. She also had spoken aggressively a few times to strangers on the bus and on the street, telling them to stop laughing at her. She even expressed that she sometimes wanted to "beat up bystanders."

The patient was naive to antipsychotic medication. In the emergency department, she was agitated and aggressive. Given her young age, she was prescribed aripiprazole (5 mg/d) to decrease the risk of weight gain and metabolic syndrome. She was also prescribed loxapine (25–50 mg every 6 h) with lorazepam (1–2 mg every 4 h) as needed to treat acute agitation. The patient received 2 intramuscular injections of loxapine after trying to assault a nurse. She developed an oculogyric crisis, acute retrocollis and torticollis associated with a tongue protrusion. She was treated immediately with an intramuscular injection of benztropine (2 mg), repeated once, and her acute dystonia subsided. Her dosage of lozapine for acute agitation was changed to quietiapine (100–300 mg/d) as needed to decrease the risk of extrapyramidal symptoms (EPS). Despite an increase in aripiprazole (15 mg/d), her condition did not improve. She developed akathisia after 4 days. Aripiprazole was stopped and olanzapine (5 mg/d) started and then increased to a dose of 10 mg within 4 days. After 5 days of treatment, the patient's psychotic symptomatology was greatly reduced, and no recurrence of EPS was observed.

Extrapyramidal adverse effects on movement, including acute dystonia, parkinsonism, akathisia and tardive dyskinesia, are a complication of antipsychotic medications associated with the blockade of dopamine D_2 receptors in the striatum and the mesocortical regions.[1] Children with ASD and ID are much more likely to receive antipsychotics than other children, and it is now estimated that 1 in 10 children treated with antipsychotics have ASD or ID.[2]

A recent large cohort study involving 9013 adults with ID showed that they are more susceptible to adverse effects on movement associated with antipsychotic medications; parkinsonism and akathisia showed the greatest difference between adults with and without ID.[3] There is evidence that children and adults with first-episode psychosis and comorbid ASD at first presentation need higher dosages of antipsychotic medication than those without ASD.[4] They are also less likely to have a beneficial response to antipsychotic treatment, showing higher rates of persistent insufficient response and adverse effects than those without ASD.[4–6] The risks of ineffective antipsychotic treatment and multiple treatment failures are much higher in young people dually affected by ASD and early-onset psychosis.[4–6]

Dystonic reactions are extremely distressful for patients and can lead to refusal of antipsychotic medication. When making treatment decisions in an emergency setting, it should be kept in mind that people with ID and ASD appear more susceptible to adverse effects — particularly on movement — and may be less responsive to antipsychotic medication. Choosing an antipsychotic with lower rates of EPS, such as olanzapine or quetiapine,[7] could be a good option to treat acute psychosis and agitation in people with ID and neurodevelopmental disorders. Clinical trials comparing specific antipsychotic medications in terms of their efficacy and adverse effects in this patient population are needed.

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