Risperidone Associated Paralytic Ileus in Schizophrenia

Parthasarathy Ramamourthy, Arunkumar Kumaran, Shivanand Kattimani

ABSTRACT

A 32-year-old man, diagnosed with catatonic schizophrenia, was treated with risperidone and lorazepam in the general hospital psychiatry setup. He developed signs of intestinal obstruction, which was diagnosed as paralytic ileus and was treated conservatively along with stopping the offending drug. Risperidone is said to be devoid of anticholinergic side effects, but prevalence of these varies from 7% to 13% in patients receiving treatment for schizophrenia. Constipation has been reported but fatal adverse effect like paralytic ileus with risperidone is rarely reported. Timely diagnosis can save the need for surgical interventions and fatal complications. This predisposition in schizophrenia could be due to neurodevelopmentally shared abnormality of brain and gut nervous system.

Key words: Antipsychotic agents, intestinal pseudo-obstruction, risperidone, schizophrenia

INTRODUCTION

Catatonia is a behavioral syndrome with motor, autonomic and psychological abnormalities. It can occur with medical, neurological or psychiatric conditions. There is no consensus on whether antipsychotic or benzodiazepine should be the primary treatment for catatonia associated with schizophrenia. Current clinical practice is to resolve catatonia with benzodiazepine or electroconvulsive therapy (ECT) and then treat underlying associated schizophrenia with antipsychotic agents. One of the common side effects of antipsychotic due to their anticholinergic property is constipation, which when chronic may lead to intestinal obstruction and associated complications. Risperidone is an atypical antipsychotic said to be devoid of anticholinergic property. Risperidone is an antagonist for 5-HT2 (Hydroxytryptamine) receptors, D-2 (Dopamine) receptors, H-1 (Histamine) and adrenergic alpha-1 and alpha-2 receptors. It has lesser propensity to cause dystonia compared to typical antipsychotics. Despite this, sign a systemic review found that in short-term drug trials (6-8 weeks) of antipsychotics for treating schizophrenia, prevalence of anticholinergic side effects such as dry mouth, blurred vision and constipation due to risperidone was 12.3%, 11.9%, and 4.8% respectively.

Currently atypical antipsychotics are the mainstay of pharmacotherapy for schizophrenia. There are reports of intestinal obstruction following treatment with combination of antipsychotics and anticholinergic drugs. In majority of cases it is chronic constipation followed by bowel obstruction. However, in literature, sign intestinal pseudo-obstruction due to risperidone is rarely reported. We present here, a case of catatonic schizophrenia who developed intestinal pseudo-obstruction (paralytic ileus) while receiving risperidone.

CASE REPORT

A 32-year-old, male with no medical comorbidities was showing symptoms of schizophrenia for past 8 months and then catatonic symptoms for past 1 month for which...
he was admitted to psychiatry ward for evaluation. He was treated with lorazepam orally (2-4 mg/day) for resolution of catatonia and risperidone 4 mg/day for his underlying psychotic illness. He remained on nasogastric tube (NT) feed along with input, output and vital monitoring. On the 8th day of starting treatment he developed bloating of abdomen, followed by vomiting. The consultation was sought from surgical speciality and he was diagnosed with paralytic ileus and managed conservatively and risperidone was stopped. He was continued on lorazepam at same dose as he had shown partial response in catatonia symptom resolution. His abdominal condition improved over 3 days and his NT feed was resumed and for his rapid resolution of catatonic symptoms he was advised to undergo ECT.

**DISCUSSION**

This case is different from usual cases of schizophrenia who develop bowel obstruction in that there was no chronic constipation and there was no use of combination of antipsychotics and anticholinergic. In a chart review to find association between medications used for treating schizophrenia and ileus, onset of ileus on an average occurred 3 years after first prescription of the offending drug. Authors noticed that increasing age, female gender and treatment with clozapine, use of high potency older antipsychotics, tricyclic antidepressants, anticholinergics and opioids increased the risk of ileus. None of these risk factors were present in the our case.

Proposed mechanism underlying paralytic ileus is mechanical, chemical, or stress-induced excessive sympathetic reflexes, inhibiting intestinal motility. There seems to be link between brain and gut, to the extent sympathetic over activity. Catatonia is a state with sympathetic over activity. Catatonia is a state with autonomic dysfunction that both enteric nervous system and central nervous system seems to be link between brain and gut, to the extent sympathetic reflexes, inhibiting intestinal motility. There is some proof that in schizophrenia, intestinal dysmotility exists, autonomic disturbance do occur during catatonia. Though paralytic ileus developing secondary to antipsychotics use is rare but can be fatal. Timely diagnosis in this case helped in preventing complications and conservative management obviated need for active surgical intervention. This calls for caution while using risperidone in treating catatonic schizophrenia.

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