

High Dosage of Aripiprazole-Induced Dysphagia

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ABSTRACT

Background: Dysphagia as a main manifestation of extrapyramidal symptoms is an uncommon adverse effect of second-generation antipsychotics.

Method: We present a 54-year-old drug-naïve patient with schizophrenia, who developed dysphagia with aripiprazole 30 mg daily treatment.

Results: This is the first case report on aripiprazole-induced dysphagia. We dis-

cuss the risk factors that led to dysphagia in this case.

Conclusion: Aripiprazole-induced dysphagia is rare, and it is important to be aware that it does occur with high-dosage treatment. © 2011 by Wiley Periodicals, Inc.

Keywords: aripiprazole; dysphagia; extrapyramidal symptoms; dosage

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Introduction

Dysphagia as a main manifestation of extrapyramidal symptoms is an uncommon adverse effect caused by psychotropic medication and may lead to the possible consequences of malnutrition, body weight loss, choking, aspiration pneumonia, and even asphyxia. First-generation antipsychotics, such as haloperidol,^{1,2} loxapine,³ and trifluoperazine,⁴ and second-generation antipsychotics, such as risperidone,^{5,6} quetiapine,^{7,8} olanzapine,⁹ and clozapine,¹⁰ has been reported to be related to swallowing disturbance. To our knowledge, there is no published report on aripiprazole-induced dysphagia. Herein, we present a drug-naïve schizophrenia patient who developed dysphagia when taking high-dosage aripiprazole.

Case Report

Mr. B, a 54-year-old male, was presented with self-talking, ritual behavior, irregular life pattern, social withdrawal, wandering in the community, irritable mood, and poor personal care for more than 30 years; he had not received medical evaluation and management until 1 month ago. He was sent to our emergency room due to psychotic deterioration

and risk of violence. He was treated with aripiprazole 10 mg daily initially, and the dosage was gradually titrated to 30 mg daily within 3 weeks due to persistent auditory hallucination. The patient complained of difficulty in swallowing on the third day of aripiprazole 30 mg daily treatment—both solid and semisolid food got stuck in his throat and he could eat only by means of drinking. No other significant extrapyramidal symptom developed at the same time, except slight salivary drooling. His body weight showed a 2.3-kg decrease (from 55.3 kg to 53.0 kg) from when he was admitted. His Functional Oral Intake Scale (FOIS) score was four points at that time. Aripiprazole was then tapered to 20 mg daily, and trihexyphenidyl 4 mg daily was added. But, the swallowing disturbance persisted 2 days after medication adjustment. We changed the antipsychotic to paliperidone 3 mg daily on the third day after the dysphagia had developed. The swallowing problem showed gradual improvement, and 4 days after the antipsychotic shift, he was able to eat semisolid food that met his nutritional needs (1,600 kcal/day) without choking. We then titrated the paliperidone to 6 mg daily, after 4 days of 3 mg treatment. Two days later, he could eat cooked solid food without difficulty, and his FOIS score progressed to six points. He regained 2.4 kg (up to 56.3 kg) 3 weeks after the antipsychotic shift.

Discussion

An increased incidence of dysphagia within the population with mental health disorders has been reported. Possible factors leading to this incidence include antipsychotic exposure, institutional conditions, neurological disorders, and manifestations of the illness itself. Dysphagia in people with mental

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disorder may be underestimated. Robbins et al.¹¹ suggested that rigidity and bradykinesia may be responsible for impairment in the oral phase of swallowing and aspiration. Fioritti et al.¹² noted that most cases can be attributed to either eating quickly or bradykinetic dysphagia.

However, drug-induced dysphagia is not rare. Mechanisms that have been related to drug-induced dysphagia were xerostomia, reduced lower esophageal sphincter pressure, esophageal injury, and extrapyramidal effects.³ Dysphagia related to antipsychotics has occurred in the oral and pharyngeal phases in swallowing.¹³

Extrapyramidal symptoms in patients using second-generation antipsychotics have decreased significantly. Although dysphagia was still noted in several case reports on the use of second-generation antipsychotics, including olanzapine, risperidone, quetiapine, and clozapine; there is no report as yet on dysphagia with aripiprazole treatment. This is the first case report on aripiprazole-induced dysphagia.

Aripiprazole is a dopamine D2 receptor partial agonist with partial agonist activity at serotonin 5-HT_{1A} receptors and antagonist activity at serotonin 5-HT_{2A} receptors. Aripiprazole also has low affinity to the adrenergic α 1 receptor, histamine H1 receptor, and muscarinic receptor.¹⁴

In our case, age, drug-naïve schizophrenia, and high-dosage aripiprazole were risk factors related to dysphagia, a main manifestation of parkinsonism. Jabs et al.¹⁵ found that age is a possible risk factor for neuroleptic-induced parkinsonism. They found a significant positive association between the prevalence of neuroleptic-induced parkinsonism and age. Other reports showed that chronically ill drug-naïve patients with schizophrenia have higher incidences of parkinsonism.^{16,17} A higher dosage of aripiprazole would increase the risk of extrapyramidal symptoms.¹⁸

Dysphagia is a rare condition in psychiatric clinical practice, but it can be dangerous. Physicians should be aware of this adverse effect, especially in elderly patients. When recurrent choking is presented, a differential diagnosis is the most important step. Consultations with a dentist, otolaryngologist, and gastrointestinal specialist are necessary, if they are available. The modified barium swallowing examination and esophagus endoscope might have some benefit in the differential diagnosis. Discontinuing antipsychotics, lowering the dosage, and changing to other antipsychotics have been successful in resolving dysphagia.²

Conclusion

Swallowing disorders in psychiatric patients are undetected and underestimated, and often only those patients with very obvious difficulties are identified. Dysphagia could lead to serious complications, but it may potentially be reversed with early intervention. Aripiprazole-induced dysphagia is rare, and it is important to be aware that it does occur with high-dosage treatment. Regular assessment of the swallowing function in these patients is important.

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