

Single Case – General Neurology

Abdominal Wall Dyskinesia: Case Report

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Keywords

Extrapyramidal symptom · Prochlorperazine · Tardive dyskinesia

Abstract

The clinical presentation of repetitive choreiform involuntary movements of the anterior abdominal wall was first introduced as “belly dancer’s dyskinesia.” Etiologies of this rare condition include idiopathic causes, medication inducement, or post-abdominal surgery. We report a case of orobuccal stereotypic movements and abdominal wall dyskinesia secondary to prochlorperazine intake. The movements began 2 weeks after cessation of prochlorperazine. The patient took this dopamine receptor-blocking medication for 6 months to treat nausea due to chemotherapy. To our knowledge, abdominal wall dyskinesia as a tardive syndrome of prochlorperazine has not been previously reported.

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Background

The clinical presentation of repetitive, dyskinetic, and involuntary motions of the anterior abdominal wall was first introduced as “belly dancer’s dyskinesia” in 1990 [1, 2]. Tardive dyskinesia, trauma, or pain of the affected region may be causative factors [3]. We report a case of abdominal wall dyskinesia secondary to prochlorperazine intake.

Case Presentation

The patient was a 68-year-old male who presented to the hospital for evaluation of sudden onset of involuntary abdominal wall movement. These movements had been going on for the past 2 weeks with a constant time course. The patient reported no associated prodrome or any obvious triggers. The movement was observed as bilateral, writhing, and continuous (online suppl. Video 1; for all online suppl. material, see www.karger.com/doi/10.1159/000504336). Furthermore, the patient showed classic orobuccolingual stereotypic movements of tardive dyskinesia, also shown in online supplementary Video 1. The neurological examination was otherwise normal.

The patient denied any similar episodes in the past. He also denied any shortness of breath, chest pain, or abdominal pain. There was no reported family history. The patient worked as a technical engineer before retirement and had a medical history of cardiac amyloidosis for which he began chemotherapy in January 2019. Chemotherapeutic agents included cyclophosphamide, daratumumab, elotuzumab, and bortezomib. Due to the side effects of nausea and vomiting, the patient was prescribed prochlorperazine (Compro) 5-mg tablets in February 2019.

The patient was a somewhat poor historian, as he initially reported that he occasionally would take 20 tablets in 1 day, but later reported that he would take 4–6 tablets per day. After chemotherapy had concluded in May 2019, the patient reported he would still take prochlorperazine as needed for prophylaxis against nausea. Pharmacy records showed that the patient obtained prochlorperazine from two different providers at two different pharmacies, which summed up to 1,620 obtained tablets over the course of 6 months.

The patient reported discontinuing prochlorperazine altogether about 1 month ago in August 2019, and the abdominal movements beginning a few weeks afterward. We suspect the abdominal wall dyskinesia to be an unusual and rare extrapyramidal manifestation of prochlorperazine.

Discussion

We report a case of a patient with bilateral, writhing, and continuous abdominal wall movement, accompanied by orobuccolingual stereotypies. Medical history and medication review revealed a likely prochlorperazine-induced etiology. The patient's extrapyramidal symptoms were not present when he was taking this medication, but first began 2 weeks after cessation. The patient's involuntary movements with onset after cessation of dopamine receptor-blocking medication are consistent with the diagnosis of tardive dyskinesia [4].

Prochlorperazine is a first-generation antipsychotic that acts as by blocking dopaminergic receptors in the brain. It is commonly used in the treatment of positive symptoms of schizophrenia as well as in managing post-chemotherapy nausea and vomiting [5]. Abdominal wall dyskinesia has a variety of etiologies, including idiopathic causes, drug inducement, post-abdominal surgery, pontine or extrapontine myelinolysis, or local trauma [2, 6].

Belly dancer's dyskinesia secondary to prochlorperazine was suspected once other potential causes had been ruled out. The patient's bloodwork, imaging, physical examination, and medical history were unremarkable and did not reveal a cause of dyskinesia. Furthermore, the temporal relationship of drug cessation and symptom onset further raised suspicion of this disorder. Dyskinesia of the abdominal wall has been previously reported with levodopa

[7], paroxetine [8], clebopride [9], and even galantamine [10] but, to our knowledge, has not been previously reported with prochlorperazine use.

The diagnosis of belly dancer's dyskinesia is a clinical one, but fluoroscopy and electromyography can be done in addition, and brain and spinal cord imaging can be done to exclude other diagnoses [2]. Different case reports have demonstrated the effectiveness of diphenhydramine and diazepam [11], transcutaneous electrical nerve stimulation [9], or phrenic nerve block when symptoms are resistant [2]. Acutely, the patient responded with improvement on clonazepam 1 mg t.i.d. Vesicular monoamine transporter type 2 inhibitors may be considered for the treatment of tardive dyskinesia [12].

Statement of Ethics

Written informed consent to publish case report and video was obtained from the patient.

Disclosure Statement

L.C., S.A., and S.W. have nothing to disclose. R.F. served on advisory boards of and as a consultant for Teva Neuroscience, Inc., Lundbeck, LLC, and Neurocrine Biosciences, Inc.

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Author Contributions

L.C. led the genesis of the paper, wrote the first draft, and obtained the video. S.A. and S.W. revised the paper and reviewed the literature. R.F. edited the video, managed the project, reviewed the literature, and revised the manuscript.

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