Case Report

Olanzapine-induced Tardive Oculogyric Crises

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ABSTRACT

Tardive syndromes are much lower in prevalence in second generation antipsychotics (SGA) than in the typical antipsychotics. Although, olanzapine, which is an SGA, has a high risk of causing weight gain, metabolic syndrome, raised blood sugar, and dyslipidemias; it is widely used as the risk of developing extrapyramidal syndromes (EPS) is low. Among the various forms of EPS, tardive syndromes are the most feared, tardive dyskinesia, tardive akathisia, and tardive dystonia are the commonest tardive syndromes, the others being less common. Tardive oculogyric crises (TOC) are a rare form of tardive dystonia. This patient had TOC with prolonged unsupervised treatment with low-dose olanzapine. Added to that, she developed weight gain that was alarmingly high and such high gain in weight with olanzapine, to our knowledge, has not been reported. She responded to a low dose of trihexiphenydyl, and on stopping olanzapine and adding aripiprazole, has started losing weight.

Key words: *Aripiprazole, olanzapine, tardive oculogyric crises, trihexiphenidyl, weight gain*

INTRODUCTION

Olanzapine is known to have a propensity to cause weight gain although the incidence of extrapyramidal side effects is lower. Though cases of tardive dyskinesia are not uncommon with the use of olanzapine, reports of tardive syndromes are few. This report is of a case of tardive oculogyric crises (TOC), which is one of the rarest presentations of tardive syndromes. The weight gain in our patient was surprisingly enormous.

CASE REPORT

Herein, we report a patient who was treated with olanzapine for schizophrenia. Over a period of 5 years, she developed severe weight gain and TOC. On change of treatment; stopping olanzapine and starting aripiprazole, the TOC stopped and a significant reduction in her weight occurred over a 4-month period.

R.L., a 28-year-old female, was first seen by us 6 years back and was diagnosed schizophrenia (DSM IV TR). She was suffering from the illness for 1 year prior to the first consultation and was drug naïve. She was put on 10 mg/day of olanzapine. Her weight at the time of onset of treatment was 31 kg. The response to treatment was good, and she was in complete remission in 8 months. Her weight was checked at each visit and it was noticed that she had put on 7 kg of weight at 8 months from onset of treatment. She now weighed 38 kg. Considering the weight gain, the dose of olanzapine was decreased to 2.5 mg/day. She was regular for her follow-up visits at monthly intervals till this time. After this, she did not attend the OP for 4½ years.

Her next visit was after a gap of 4½ years. The relatives complained that she had episodic, rhythmic, involuntary uprolling movements of the eyeballs, lasting for a few minutes, about 8 to 10 times a day since 1 month. During these episodes, she was fully conscious and alert. There was no involvement of other

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muscles. Throughout the period of 4½ years, she had been regularly taking olanzapine 2.5 mg/day without supervision. The relatives had brought her back, not for the weight gain, but for the TOC. She weighed 63 kg., which was more than twice her baseline weight, which was 31 kg at the onset of treatment with olanzapine. After stopping olanzapine and starting aripiprazole her weight reduced to 58 kg.

Her magnetic resonance imaging scan of the brain and electroencephalography were normal. A neurologist and an endocrinologist were consulted, and based on the clinical features, investigations and video clippings made available by the family; a diagnosis of "neuroleptic induced tardive oculogyric crises" was made.

Olanzapine was stopped and she was put on trihexiphenidl, 4 mg/day with aripiprazole 10 mg per day. Her TOC stopped gradually over 3 months, and there was no recurrence of psychotic symptoms. Her weight decreased from 63 to 58 kg over 4 months.

She is at present on aripiprazole 10 mg/day with trihexiphenidyl 4 mg/day. She is in complete remission and has had no further episode of TOC.

DISCUSSION

This case is of interest for the following reasons: With low-dose olanzapine, her weight doubled; there is no reported case of olanzapine causing this magnitude of weight gain, the maximum reported weight gain is 21.1 kg in the Asian population and the peak is reached at around 6 months after which it plateaus off.[1] In our patient, the weight gain continued for more than 4 years. During this period the patient as in remission and did not attend the outpatient department for follow-up, but continued olanzapine 2.5 mg/day. The relatives did not worry about the weight gain but brought her with their concern about the TOC; TOC is a manifestation of tardive dystonia,[2] which often requires very high doses of trihexiphenidyl, often about 24-30 mg/day,[3-5] whereas this patient responded to 4 mg/day. After discontinuing olanzapine and starting the patient on aripiprazole her weight reduced from 63 to 58 kg. It is inconclusive whether this weight loss was due to discontinuing olanzapine or starting aripiprazole.

It may be safe to start olanzapine only when one is fairly certain of follow-up after remission.

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