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## Olanzapine Induced Rabbit Syndrome- Case Report

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### ABSTRACT

The aim of this study to assess Rabbit Syndrome (RS) in case of Olanzapine treatment patients with Bipolar affective disorder. Rabbit syndrome (RS) is an antipsychotic-induced rhythmic motion of the mouth/lips resembling the chewing movements of a rabbit. The movement consists of a vertical-only motion, with no involvement of the tongue. Long-term exposure to typical antipsychotics has clearly been associated with RS, but little is known of the risk of RS due to exposure to newer atypical antipsychotics. There have been isolated reports of RS in patients treated with the atypical agents Olanzapine, Risperidone, Aripiprazole and Clozapine. We have observed two cases of Rabbits syndrome in a 45 year old female diagnosed with bipolar affective disorder and 35 year old male patient diagnosed with generalized anxiety and depression treated with Olanzapine.

**Keywords:** Olanzapine, Rabbit Syndrome.

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## INTRODUCTION

Rabbit syndrome (RS) first reported in 1972, is characterized by fine, rapid, rhythmic movements along the vertical axis of the mouth. Long-term exposure to the older neuroleptics has clearly been associated with RS, but little is known regarding the risk of RS due to the exposure to the newer atypical antipsychotics. This syndrome is considered a distinct neuroleptic-induced extrapyramidal syndrome. There is evidence that RS combines features of both Parkinson's disease and tardive dyskinesia<sup>1-4</sup>. RS is believed to be a rare condition affecting only a small fraction of the psychiatric population using neuroleptics. Yassa and Lal<sup>5</sup> carried out the first prevalence study by focusing on the inpatient population of a psychiatric institution and reported a 2.3% prevalence rate of RS in a sample of 266 in-patients receiving older neuroleptics, either as monotherapy or in combination with anticholinergic agents.

The prevalence rate of RS in patients solely taking neuroleptics was 4.4%. Another prevalence study<sup>6</sup> found a rate of 1.5% for RS among neuroleptic-treated patients in a geriatric mental health clinic. Several case studies have been published on the relationship between older antipsychotics and RS. The use of high-potency neuroleptics with low anticholinergic activity, like Haloperidol, is common to most of these cases<sup>7</sup>. Risperidone is considered to be the atypical antipsychotic with the highest incidence of extrapyramidal symptoms<sup>8</sup>.

This high incidence may be caused by the high affinity for the serotonin type 2 and dopamine type 2 receptors and the low affinity for cholinergic muscarinic receptors. Other three drugs that cause rabbit syndrome are Clozapine, Olanzapine and Aripiprazole. These atypical antipsychotics are characterized by a relatively low incidence of extra pyramidal symptoms.

### Case Report

We have observed two cases of Rabbits syndrome one in a 45 year old female diagnosed with bipolar affective disorder and was treated with inj. Haloperidol 50 mg per month, Olanzapine 10 mg daily at bed time, Lithium carbonate 900 mg daily in divided doses, and Sodium valproate 600 mg daily in divided doses from January-2014. Recently patient came to the OPD with peri-oral tremor and sialorrhoea, on clinical investigation it is concluded to be a case of rabbit syndrome. On detection of RS Haloperidol and Olanzapine was discontinued and dose of Sodium valproate was reduced to 500 mg daily, patient recovered within 10 days.

Another case in a 35 year old male patient diagnosed with generalized anxiety and depression treated with Olanzapine 20 mg daily from Jan-2013, he also developed same features of peri-oral

tremor without the involvement of tongue after one year of taking the medicine, medication was stopped and patient recovered within a week.

## CONCLUSION

These improvements have led to the development of new generation antipsychotics with fewer side effects and more therapeutic effectiveness. Olanzapine is considered an atypical antipsychotic drug. Atypical antipsychotics differ from typical antipsychotics in their effectiveness in schizophrenia and their profile of side effects. Olanzapine may reduce the signs and symptoms of schizophrenia in a large proportion of treatment-resistant schizophrenic patients who do not respond to typical antipsychotics. RS is believed to be a rare condition affecting only a small fraction of the psychiatric population using antipsychotics. RS responds well to treatment with anticholinergic agents. RS typically disappears a few days after the introduction of an anticholinergic agent, but can, on occasion, reappear after stopping anticholinergic medications. In the presentation of the case a different atypical antipsychotic treatment was applied in a similar way. Furthermore, increased awareness in medical practice that atypical antipsychotics cause RS, albeit rarely, will be beneficial in both patient compliance with treatment and in providing data for more comprehensive models to explain RS progress.

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