

## Video Article

# Risperidone-Induced Rabbit Syndrome: Video-Clinical Report

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## Abstract

Tremor is a frequent movement disorder manifestation, whose etiology varies from common causes to rarer syndromes that are part of the differential diagnosis. Risperidone intervention in dopaminergic transmission can affect the motor control performed by the striatum, generating the so-called extrapyramidal syndromes. Among these syndromes, we have the rabbit syndrome, which is manifested by the chronic use of antipsychotics and causes involuntary movements of the muscles of the jaw and tongue. We present a video-case study of a patient with chin tremor after using risperidone.

**Keywords:** Rabbit syndrome; Extra pyramidal syndromes; Toxic syndromes

## Introduction

Tremor is a frequent movement disorder manifestation, whose etiology varies from common causes to rarer syndromes that are part of the differential diagnosis [1]. Risperidone is a selective monoaminergic antagonist, its main action as an antipsychotic is attributed to its affinity to dopamine D2 receptors [2]. However, intervention in dopaminergic transmission by this medication can affect the motor control performed by the striatum, generating the so-called extrapyramidal syndromes [3,4]. Among these syndromes, we have the rabbit syndrome, which is manifested by the chronic use of antipsychotics and causes involuntary movements of the muscles of the jaw and tongue [5].

## Methods

We conducted a search on Rabbit Syndrome, Extrapyramidal Syndromes, and Toxic Syndromes in the databases: PUBMED, SciELO and LILACS. We present a case study of a patient with chin tremor after using risperidone.

## Case Presentation

E. B. L., 89 years old woman, undergoing neurological monitoring due to dementia. She started using risperidone 1 mg at night to treat behavioral change and aggression. However, 4 months after the beginning of the medication, she started to have chin tremor and stiffness involving the upper limbs. These symptoms improved after changing risperidone to olanzapine 5 mg at night (Video).

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<https://youtu.be/G0UORTWJsKo>

## Discussion

The authors classified the case presented as rabbit syndrome, triggered by the use of risperidone. The main symptoms of this syndrome are the protrusion of the tongue associated with sweeping movements, synchronous masticatory movements and, more rarely, changes in the movements of the trunk and limbs may occur [1,4,5]. These symptoms require prolonged use of antipsychotic stomanifest, usually two years or more [4,6,7]. In this case, the manifestations started after 4 months of using the medication. Therefore, the use of these drugs is a strong indication of this syndrome in patients with a compatible clinic.

## Conclusion

The present study emphasizes the importance of recognizing Rabbit Syndrome and the clinical repercussions of symptomatic variants, such as tardive dyskinesia, nocturnal bruxism and altered tongue motricity, in the differential diagnosis of drug-induced movement disorders. In this sense, the neurological assessment includes an elucidating clinical history and targeted physical examination.

## References

1. Ure RJ, Dhanju S, Lang AE, Fasano A. Unusual tremor syndromes: know in ordertorecognise. *J Neurol Neurosurg Psychiatry.* 2016;87(11):1191-203.
2. Sanjai Sinha. Risperidona. *Drugs.com*, 2020.
3. Abreu PB, Bolognesi G, Rocha N. Prevenção e tratamento de efeitos adversos de antipsicóticos. *Rev Bras Psiquiatr.* 2000;22(supl 1):p.41-4.
4. Santa catarina. RAPS. Síndrome tóxicas por neurolépticos: Protocolo Clínico. 2015.
5. Rebello P, Rao PP, Nayak P, Mascarenhas JJ, Mathai PJ. Risperidoneinducedrabbitsyndrome. *Neurol India.* 2018;66(Supplement):S150-2.
6. Teixeira PJR, Rocha FL. Efeitos adversos metabólicos de antipsicóticos e estabilizadores de humor. *Rev psiquiatr Rio Gd Sul.* 2006;28(2):p.186-96.
7. Frederico WA, OGA S, Pequeno MLR, Taniguchi Shirley. Extrapyramidal side effects as a consequence of treatment with neuroleptics. *Rev Einstein.* 2008;6(1):51-5.