



## ATYPICAL ANTIPSYCHOTIC-INDUCED TEMPOROMANDIBULAR JOINT DISLOCATION: A CASE REPORT

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### INTRODUCTION

Dystonia is a kind of movement disorder that leads to prolonged muscle contractions, leading to abnormal postures of the trunk, neck, face, arms or legs. It can be generalised or focal and primary or secondary depending on the etiology. It can manifest as oculogyric crisis, abnormal tongue movements, torticollis and opisthotonus. Laryngeal and pharyngeal spasms may as well be life threatening. Drug induced dystonia is most commonly caused by the drugs which alter the dopaminergic and cholinergic balance in the nigrostriatum (basal ganglia). Most of these drugs cause dystonia by blocking D2 dopaminergic receptors in the nigrostriatum which leads to an unopposed and unbalanced cholinergic output. Antipsychotics along with metoclopramide are the most common drugs which are responsible for the various dystonias and a common presentation in the psychiatric wards. However, atypical antipsychotics are less likely to cause these symptoms because along with D2 receptor blockade they also cause M1 receptor blockade. Dystonia typically present within first few hours or days of the therapeutic administration or dosage increase of the drug. Oromandibular dystonia (OMD) is a focal dystonia which leads to clenching of the jaw, deviation of the jaw, difficulty in opening of the mouth leading to problems with speech and chewing. Sometimes oromandibular dystonia can be so severe leading to temporomandibular joint (TMJ) dislocation. Young males with a positive family or personal history of dystonia are at a greater risk. Acute dystonic reactions are more common in the younger individuals and declines with advancing age, most common age group being 10-19 years although it can affect individuals in the age group of 5 to 45. We present a case of risperidone induced bilateral temporomandibular joint dislocation following oromandibular dystonia.

### CASE REPORT

This is a case of 23 year old female was admitted to the psychiatry ward with complaints of suspiciousness towards her parents, delusions of persecution and auditory hallucinations starting 2 years back. Gradually she started developing negative symptoms, prominent among those were lack of motivation, decreased self-care, personal hygiene and social withdrawal. Her grades at her school started falling. Her symptoms have been worsening since last 2 weeks. She was started on IV lorazepam 4mg/day and IV hydration. She was also started on oral risperidone 3mg/d, about 18 hours later she started complaining about jaw pain. On examination she had temporomandibular dystonia. Her vitals were

stable and she had a normal systemic examination. A maxillofacial surgeon was called and he confirmed the diagnosis of temporomandibular junction dislocation. Risperidone was immediately stopped. Dislocation was reduced under local anaesthesia and she was started on muscle relaxants. Lorazepam 4mg/d continued in divided doses. Finally the pain subsided. She was switched to oral aripiprazole 15 mg/day. Her psychotic symptoms improved over a period of 15 days and she was subsequently discharged.

### DISCUSSION

In this case report we presented a case of oromandibular dystonia leading to temporomandibular joint dislocation

following oral risperidone 3mg/d. Dislocation of temporomandibular joint after the use of antipsychotics was first reported by O'Hara in 1951. Oromandibular dystonia was common after the use of 1st generation antipsychotics and the prevalence may be as high as 33%.<sup>2</sup> The extrapyramidal side effects are less in the second generation antipsychotics however different atypical antipsychotics have different extrapyramidal side effect profile. In clinical practice all the antipsychotics including the atypicals are capable of causing extrapyramidal side effects. Among atypicals risperidone is more likely to cause dystonia because of its high affinity towards D2 receptors. Acute dystonic reactions (ADR) are also dose dependent and occur in overdoses. There are few case reports of dystonia with risperidone and amisulpride.<sup>[3]</sup>

1998; 65(5): 722-8.

Our patient was started on the antipsychotics for the first time and she belonged to a younger age group which both are individual risk factors for the development of extrapyramidal side effects. Generally acute dystonia is completely reversible with the use of drugs and supportive care. In this case we managed the patient with anticholinergic drugs, benzodiazepines and muscle relaxants followed by the reduction of the temporomandibular joint with the help of an oral surgeon. For prevention of recurrent dystonia and TMJ dislocations oral anticholinergic drugs should be used for the next 48- 72 hours Botulinum toxin injection can also be helpful in certain cases.<sup>[4,5]</sup>

TMJ dislocation can be very stressful and worrisome for the patient. It causes difficulties with speech, chewing and swallowing. Although it is a very rare side effect but a very serious one and a great deal of attention should be paid during the prescribing of antipsychotics keeping in mind the various risk factors which a patient is predisposed to.

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