

## Acute Oculogyric Crisis and Torticollis induced by Risperidone

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The use of antipsychotic drugs, particularly those that act as antagonists at dopamine receptors, is linked to a range of extrapyramidal side effects. One of the most frequently observed conditions is acute dystonic reaction. These reactions typically manifest during the initial stages of antipsychotic

treatment and may present with distinctive clinical manifestations, such as oculogyric crisis and torticollis. This article presents a case of oculogyric crisis and torticollis resulting from antipsychotic use (Photo 1.)



**Photo 1:** Oculogyric crisis, torticollis and post-treatment case (Photo is taken from Dr. Muhammet Ali Balcıoğlu Archive)

A 16-year-old female patient was undergoing treatment with fluoxetine 20 mg/day and risperidone 1 mg/day for an anxiety disorder over a 20-day period. On the day prior to her admission, the patient began to report limitations in her ability to look to the right, accompanied by a deviation of the neck to the left. The patient indicated that their ability to perform daily activities was hindered by the restriction of neck movement. Upon presentation to the emergency department, the patient's vital signs were stable, and the Glasgow Coma Scale (GCS) score was 15. The patient's level of consciousness was clear, and she demonstrated good cooperation. However, she exhibited notable fixed upward deviation of the eyes and

rightward torticollis in the neck. Additionally, the patient reported a notable degree of anxiety associated with this condition. Following an evaluation at our clinic, a diagnosis of oculogyric crisis and torticollis due to antipsychotic use was made. It was hypothesised that the patient's current symptoms had developed as a result of dopamine D2 receptor blockade by risperidone. The initial treatment of dystonic reactions is typically anticholinergic drugs. The patient was administered a 5 mg intravenous dose of biperiden. Furthermore, 5 mg of diazepam was administered intravenously with the objective of relaxing the patient and alleviating his anxiety. Following the administration of biperiden and diazepam, the dystonic findings in the eyes and neck

exhibited a marked improvement within approximately 15 minutes. The patient's ocular deviation and cervical immobilisation were fully resolved, and he reported a sense of comfort. This rapid response to treatment demonstrated the sensitivity of dystonic reactions to medical intervention. Following the administration of treatment, the patient's general condition was found to be stable. Consequently, he was admitted to the ward, and a request was made for a consultation with a specialist in paediatric psychiatry and paediatrics. From a psychiatric perspective, risperidone treatment was discontinued and alternative antipsychotic treatment options were explored.

This case study serves to illustrate the occurrence of acute dystonic reactions, a rare but potentially severe adverse effect associated with the use of antipsychotic medications. Dopamine antagonists, such as risperidone, have been observed to induce dystonia, which may present as oculogyric crises and torticollis. Prompt diagnosis and treatment are of significant importance in the management of such conditions. The use of anticholinergic agents and benzodiazepines has been demonstrated to be an effective treatment for acute dystonic reactions, with a rapid onset of symptomatic improvement. As in this case, the patient exhibited a rapid response to treatment and was discharged with a full recovery. It is of significant importance to monitor the

occurrence of such adverse effects and implement preventative measures when administering antipsychotic medications.

**Key words:** risperidone; oculogyric crisis; torticollis; biperiden; diazepam

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