Oculogyric Crisis in a Patient with Schizophrenia, DiGeorge and Fahr's Syndrome

Background: Oculogyric crisis (OGC) is characterized by involuntary spasticity of the eye. OGC can occur as a side effect of antipsychotic medications and some hereditary disorders, including DiGeorge syndrome and Fahr's syndrome. This case demonstrates the complex interrelationship between genetic predisposition and medication use in a patient who has schizophrenia, DiGeorge syndrome, and Fahr's syndrome.

Presentation: We present the case of a 25-year-old woman with a history of schizophrenia, DiGeorge syndrome, and Fahr's syndrome who was diagnosed with OGC. She presented with 2 weeks of progressive upward "eye rolling" and non-command auditory hallucinations (AH). She has experienced eye rolling since 2021 at least three times a week. Her schizophrenia medications consisted of paliperidone palmitate IM 117mg monthly, fluphenazine decanoate IM 12.5mg biweekly, and oral benztropine 1mg twice daily (BID) for extrapyramidal symptoms (EPS). She reported taking benztropine only when experiencing symptoms instead of BID, but was adherent to all other medications. The eye rolling improved after consistent administration of benztropine BID in the hospital, and she was discharged with instructions to continue taking all of her schizophrenia medications as prescribed.

Conclusion: The triad of conditions has been documented in the literature only once in the same patient. A possible explanation for stronger responses to antipsychotic medications in DiGeorge syndrome patients may be a consequence of Comt gene modification involved in degrading catecholamines. In patients with multiple risk factors for EPS, medications with a high risk profile for EPS should be avoided, particularly high potency first-generation antipsychotics. With discussing this unique patient presentation, providers are encouraged to take a thorough history, perform an adequate chart review, and develop a broad differential diagnosis when encountering similarly complex cases.