

COULD RISPERIDONE HAVE CAUSED THE CATARACT? : A CASE REPORT AND REVIEW OF LITERATUREMary C. Dsouza¹¹Assistant Professor, Department of Psychiatry, Institute of Psychiatry and Human Behaviour Bambolim, Goa.**ABSTRACT**

Lenticular changes and ocular disturbances have been reported in conjunction with the use of antipsychotic drugs. The newer generation of antipsychotic agents have shown no evidence of an etiologic relationship with cataract occurrence. Research did reveal cataract occurrence in dogs who received quetiapine, which prompted concern despite there being no known causal link between quetiapine and lens opacities in humans. ⁽¹⁾ Risperidone has not been associated with much of ophthalmic adverse effects. We report a case of a young female adult schizophrenic who developed cataract at the age of 28years while on Risperidone.

KEYWORDS

Schizophrenia, Ophthalmic Complications, Adverse Drug Reaction, Atypical Antipsychotics.

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INTRODUCTION

Most psychotropic medications have the potential to induce several diverse and unwanted ocular changes. ^(2,3,4) Lenticular, glaucomatous, retinal and other ocular disturbances have been reported in association with the use of antipsychotic drugs. Cataract formation can result from antipsychotics, mainly from high dosages of chlorpromazine or thioridazine. Studies have shown that these two drugs, when used at high dosages and for prolonged periods, frequently cause lenticular opacifications. ^(4,5) Among atypical agents focal triangular cataracts were found in beagle dogs that received quetiapine for 6 to 12 months. Infrequent occurrences of cataract development have been documented in people taking olanzapine but, again, without established causative association; a similar situation is seen with ziprasidone. Cataract was found among people who take Risperidone, especially for people who are female, 50-59 old, have been taking the drug for 2- 5 years. Ruigomez A et al, have stated in their study that there is no indication that schizophrenia per se is associated with an increased risk of developing cataract. ⁽⁶⁾ We report a case of a young female adult schizophrenic who developed cataract at the age of 28years while on Risperidone.

CASE REPORT

A 19-year-old female patient first presented with complaints of aggressive, abusive behaviour, muttering to self, neglect of self-care hygiene for a duration of about two years. She was diagnosed as undifferentiated schizophrenia as per International Classification of Diseases-10 criteria and started on Risperidone 2mgs and gradually increased to 4 mgs. Patient showed improvement in psychotic features but developed tremors of hands, akathisia for which she was started on antiparkinsonian drugs (Trihexyphenidyl 2mgs OD).

Patient continued to take irregularly these medications till 2003.

In 2003 she reported again with abnormal behaviours like aggressive abusive behaviour, head nodding, hand jerking, throat clearing, spitting, lip movements, tongue movements, echopraxia, echolalia etc. Her diagnosis was revised as Tourette's Syndrome and continued on Risperidone 6 mgs.

Patient was also tried on sodium valproate and Olanzapine for brief periods of 4-6 weeks for these symptoms. Patient had a couple of admissions in between for relapse on discontinuation of medications. In one such admission in 2005 patient complained of diminished vision for which she was referred to an ophthalmologist. Her visual acuity was 20/50 in (R) eye and 20/35 in (L) eye. Penlight examination revealed clear cornea with opacity in the centre of the lens in both the eyes, more in the right eye. Slit lamp examination showed diffuse pigmentation on the back of cornea and a star shaped cataract involving the anterior capsule and sub capsular epithelium of the lens. Dilatation of the lens with 1% Tropicainamide and indirect ophthalmoscopy revealed nothing significant.

She was opined to have immature cataract in both eyes. She continued to remain on risperidone during this time. She followed up regularly with the ophthalmologist for her eye compliant. Her psychiatric symptoms were stable on medications. In 2014 (When aged 37yrs) her ophthalmic examination revealed a mature cataract in the right eye for which she was advised operative intervention. Patient was not a known diabetic, non-smoker and non-alcoholic. No history of taking steroids or any other medications besides the psychotropics and there was no known exposure to ionising radiations.

There was no history of any eye injury/inflammation. On application of the Naranjo Adverse Drug Reaction Probability Scale the score was four which means that it is a possible adverse effect. ⁽⁷⁾

DISCUSSION

Lens changes and ocular disturbances have been reported in conjunction with the use of antipsychotic drugs. The incidence of cataracts is 4.5 per 1,000 person-years among the general population and 3.5 in the schizophrenia population. ⁽⁶⁾ There is no indication that schizophrenia per se is associated with an increased risk of developing cataracts. Among long-term users of chlorpromazine at daily doses of 300 mg or greater, and among users of prochlorperazine, the relative risks were 8.8

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(95% confidence interval=3.1-25.1) and 4.0 (95% confidence interval=0.8-20.7), respectively. ^(4,5,6)

Research did reveal cataract occurrence in dogs who received quetiapine, which prompted concern despite there being no known causal link between quetiapine and lens opacities in humans.⁽¹⁾ Infrequent occurrences of cataract development have been documented in people taking olanzapine but, again, without an established causative association. A similar situation is seen with ziprasidone. ⁽⁵⁾ There were no significant differences among the patient groups in the incidence of new cataracts in the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study. ⁽⁸⁾

Cataract was found among people who take Risperidone, especially in people who are females, 50-59 old, have been taking the drug for 2- 5 years, also take medication Zyprexa, and have schizophrenia. ⁽⁹⁾ The index patient did not exhibit any risk factors for the early onset of cataract except for being on Risperidone for the longest duration and on a reasonable high dose.

CONCLUSION

There is little information on the potential for inducing cataract among the new generation antipsychotics. Olanzapine, Ziprasidone, and Quetiapine have been infrequently associated with cataracts. Our case reflects that cataract, though rare may present as an adverse effect of Risperidone. As is evident from the literature cataract should be considered a possible adverse effect of the newer antipsychotics and the clinician should be alert towards visual disturbances and recommend ophthalmic examination for the same. Further studies are needed to confirm these findings in larger patient populations using non-naturalistic design which controls the drug per dose and duration of intake.

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