Antidepressants linked to cataract risk -- Parkinson's drug may cause corneal damage

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This month's *Ophthalmology*, the journal of the American Academy of Ophthalmology, includes new studies on links between eye diseases and two widely-prescribed drugs: SSRI (selective serotonin reuptake inhibitor) antidepressants, and amantadine, a Parkinson's disease treatment.

Some Antidepressants May Bump Up Cataract Risk

Seniors who take SSRI antidepressants may be more likely to develop cataracts, says the first major study to examine this interaction. The risk appears to increase by about 15 percent, which in the United States would translate to 22,000 cataract cases attributable to antidepressant use. The study, led by Mahyar Etminan, PharmD, of Vancouver Coastal Health Research Institute, Canada, assessed data for nearly 19,000 people age 65 or older, all of whom also had cardiovascular disease. Their records were compared to about 190,000 controls.

The effect was strongest for three SSRIs: Luvox (fluvoxamine) increased risk by 39 percent, Effexor (venlafaxine) by 33 percent and Paxil (paroxetine) by 23 percent. The apparent increased risk was associated only with current, not past, drug use. Some antidepressants did not appear to be associated with cataract risk, but this could have been because the numbers of study participants using these drug types were too small to show effects, or because only specific agents in certain medications are related to cataract formation. These questions need

further study.

"The eye's lens has serotonin receptors, and animal studies have shown that excess serotonin can make the lens opaque and lead to cataract formation," Dr. Etminan said. "If our findings are confirmed in future studies, doctors and patients should consider cataract risk when prescribing some SSRIs for seniors," he added.

Earlier research linked beta blocker medications and oral and inhaled steroids to higher cataract risk, and a recent Swedish study suggests that women's hormone replacement therapy may also raise risk.

Long-term Use of Parkinson's Drug May Impact Vision

Parkinson's disease, the second most common neurodegenerative disease after Alzheimer's, is often treated with amantadine. The drug helps alleviate patients' motor problems and may be taken for years. Doctors have long known that amantadine treatment causes abnormal changes in the cornea in some Parkinson's patients. The cornea is the eye's clear outer surface that provides most of the visual power. Usually corneal reactions occur soon after starting the drug and disappear a few weeks after it is withdrawn. But sometimes corneal disorders appear only after years of treatment, and the corneas of these patients often do not recover when amantadine is stopped. Won Ryang Wee, MD, PhD, and his colleagues at Seoul National University College of Medicine, South Korea, studied whether the effect of amandatine on corneal endothelial cells is dependent on the cumulative dose received.

The researchers compared 169 eyes of amandatine-treated patients with an equal number of matched controls; the average age of all subjects was 59. They found that the patient group with the highest cumulative

amandatine intake and/or longest duration of treatment (up to 8 years) had the most significant reductions in endothelial cell density (ECD). Endothelial cells work to keep excess water out of the main body of the cornea. When there are too few endothelial cells, corneal edema (swelling) results and vision is impaired. This study noted two early indicators of abnormal corneal changes in response to amandatine, before ECD reduction occurred: deformation of the normal hexagonal cell shape, and increase in cell size variation. The findings also show that ECD reduction in response to amandatine treatment does not occur quickly.

"Assuming other studies confirm these results, ophthalmologists and neurologists should consider evaluating a patient's corneal endothelium at the beginning of treatment with amandatine and reassess at regular intervals if the drug is used long term," Dr. Wee said, "and additional monitoring would be needed for patients with other conditions that reduce ECD-such as recent cataract surgery or ongoing glaucoma, uveitis or Fuch's dystrophy-because corneal edema could develop during treatment."

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