

AMD risk on the rise for Asians; retinal vein 'bypass' may help many CRVO patients

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The May issue of *Ophthalmology*, the journal of the American Academy of Ophthalmology, includes a surprising, first report on increasing rates of age-related macular degeneration (AMD) among Asians, and describes an innovative "bypass" laser surgery that may help many people with central retinal vein occlusion (CRVO) avoid serious vision loss.

Are Asians as Vulnerable to AMD as Caucasians?

A major review by Tien Yi Wong, MD, MPH, PhD, and Singapore Eye Research Institute colleagues concludes that Asians may be just as susceptible to age-related macular degeneration as Caucasians. Asians have long been considered a low risk group for AMD, which is a leading cause of vision loss in older Caucasians. Since the number of elderly people is increasing in Asia, Dr. Wong's study suggests that health systems there need to prepare for an onslaught of AMD.

Pooling results from nine standardized-diagnosis studies in five Asian populations (Japan, China, South Korea, India and Singapore), Dr. Wong's group confirmed prevalence of early-stage AMD as 6.8 percent and late-stage as 0.56 percent, comparable to Caucasians at 8.8 percent and 0.59 percent, respectively. All rates pertain to people aged 40 to 79 years. Also, among those with late AMD, the "wet" (neovascular) form appeared to be more prevalent in Asians than in whites. Asian men were more likely to develop late AMD than white men and much more likely

than Asian women.

The researchers speculate that Asian men may be more susceptible to polypoidal choroidal vasculopathy (PCV), abnormal development of blood vessels in the deeper layers of the eye. Whether PCV is a sub-type of AMD or a separate disorder remains controversial; it is also unclear whether PCV responds well to medications that inhibit abnormal blood vessel growth (anti-vascular endothelial growth factor drugs such as Avastin and Lucentis) that help many wet AMD patients keep their vision.

"Future studies should evaluate whether there are 'Asian forms' of AMD and discern other racial/ethnic differences in Asian susceptibility," Dr. Wong said. "Our meta-analysis could not adjust for important risk factors like smoking, common among many Asian men; nor did this study include all relevant Asian racial/ethnic groups," he added.

"Bypass" May Lead to Vision Gains for CRVO Patients

Central retinal vein occlusion (CRVO) affects one to four percent of Americans older than 40 and very often causes severe vision loss, including "legal blindness" (20/200 vision). While current treatments reduce CRVO symptoms such as macular edema—swelling of the center of the eye's light-sensitive retina—none address the underlying problem, the blocked retinal vein. Ian L. McAllister, MD, Lions Eye Institute, Australia, and his research team took direct aim at the problem, using lasers to create a "bypass" around the constricted retinal vein with the aim of restoring near-normal blood flow to the retina.

In three-quarters of the eyes treated the "bypass" was successful, and patients achieved significant vision gains by the 18 month follow-up.

This study was also the first prospective, randomized trial to compare the bypass approach, called laser-induced chorioretinal venous anastomosis (L-CRA), with conventional treatment.

L-CRAs were successfully created in 76.4 percent of the 58 patients in whom the procedure was attempted. Overall, bypass-treated patients achieved significantly better visual acuity and were more likely to gain 20/40 vision (the legal standard for drivers in many countries) than were control group patients. Bypass patients were significantly less likely to have moderate or severe vision loss. While about 18 percent of L-CRA-treated patients developed a significant complication—abnormal [blood vessel growth](#) at the surgery site—the researchers report that due to close monitoring and effective management, negative consequences from this and other complications were minimal.

"The risk of complications from L-CRA should be weighed against the substantial vision loss faced by CRVO patients with standard treatments," Dr. McAllister said. "In future studies of L-CRA, optical coherence tomography (not widely available when our study began) would be another useful outcome measure for L-CRA effectiveness," he added.

Provided by American Academy of Ophthalmology

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