



Retina/Vitreous

Laser rejuvenates the eye by cleaning Bruch's membrane, surgeon says

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VIENNA, Austria — A laser treatment that "cleans up" Bruch's membrane and therefore rejuvenates the retina could slow disease progression in various forms of maculopathy and may prevent age-related degeneration processes, according to a study.

"Purely as part of the aging process, the build-up of debris within the Bruch's membrane results in progressive inability of sufficient metabolic material to pass through it and keep the photoreceptor cells alive. So at some point, even an individual with no disease process will progressively lose vision as a result of the aging process," John Marshall, PhD, said at the Euretina Congress here.

At St. Thomas's Hospital in London, research resulted in the development of a novel therapeutic approach to the aging Bruch's membrane. The Retinal Rejuvenation Therapy (2RT, Ellex) uses a special green nanosecond pulse laser for "reconditioning" Bruch's membrane and photoregeneration.

"First, we verified experimentally that we are able, through the use of this laser, to clean up the membrane. Then we used this process in patients with macular edema and obtained a marked improvement. The edema was reabsorbed, and visual acuity increased.

"For age-related macular degeneration, we are now in the process of setting up a trial in which we will treat the second eye of patients who have already lost one eye through neovascular problems," Dr. Marshall said. "These patients would lose the second eye within 2 to 3 years, and the time base of this study is to evaluate whether we can preserve the second eye for at least 7 to 10 years."

But the ultimate goal, he noted, is to treat patients in their 40s to keep their eyes young and prevent age-related degenerations of the retina.

The treatment is noninvasive and seems to have no adverse effects on the photoreceptors or other parts of the eye.

The laser is in pre-production and will be marketed in the near future, he said.

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