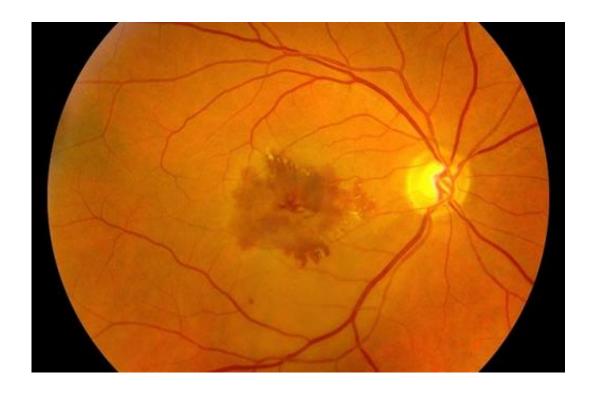


## New drug could help AMD sufferers

June 18 2013, by Richard C. Lewis



University of Iowa researchers report that a new drug holds promise for those with age-related macular degeneration (shown in this image by the darkened splotch in the center), which is the leading cause of vision loss and blindness in older Americans. Credit: Vinit Mahajan, University of Iowa

There is no cure for age-related macular degeneration, an eye disease that is the leading cause of vision loss and blindness in older Americans. Last year, the National Institutes of Health reported that two drugs injected into the eyes, Avastin and Lucentis, eased symptoms for sufferers, especially those in the advanced, "wet" stage of the disease,



when blood vessels in the eye become swollen and leak fluids in the eye.

Yet for some AMD patients, the two drugs either don't work for long or fail to work at all. It's a dead end for treatment, or so it seemed.

Now, a team of <u>ophthalmologists</u> at the University of Iowa has shown that a third drug, Eylea, can ease leaking and <u>vision problems</u> for wet AMD patients. In a study involving 31 AMD patients at the UI Hospitals and Clinics, researchers report that half of the eyes treated with Eylea had reduced fluid after three monthly injections. Moreover, in some cases subsequent bimonthly injections with Eylea were deemed as effective as monthly injections of Avastin and <u>Lucentis</u> over a similar time period, meaning fewer visits by patients and less cost.

"The challenge has been treating patients who are not very responsive to the first two drugs (Avastin and Lucentis). It was assumed that they would not respond to anything," says Vinit Mahajan, assistant professor in the Department of Ophthalmology and Visual Sciences at the UI and corresponding author on the paper published online in the *American Journal of Ophthalmology*. "We are among the first to show that this drug can be effective in patients that were resistant to the first two drugs."

The patients who tried out Eylea were 79 years old on average. All had undergone eye injections with Avastin and Lucentis, some dozens of times. After three monthly injections of Eylea, half of the eyes treated (18) had less fluid in or around the <u>retina</u>. One in five of those patients also had improved vision after the initial rounds of treatment, according to the researchers, and nearly one in three had improved vision after six months of treatment.

"What this means is if you have a patient who's not responding to Avastin or Lucentis, they need to try this new drug," says Mahajan, who



has no financial stake in Eylea's manufacturer, Regeneron Pharmaceuticals, Inc. "There's a very reasonable chance they're going to do better with it."

All three drugs target swollen blood vessels in the eye, albeit through different pathways. Of AMD patients who respond well to Avastin (clinical name bevacizumab and manufactured by Genentech USA, Inc.) and Lucentis (clinical name ranibizumab and also manufactured by Genentech USA, Inc.), a minority develop a resistance to the drugs, and the leaking in their eyes restarts, followed by recurring vision loss. That development has sparked a wave of research to find other so-called anti-VEGF medications that can be used for AMD treatment. Eylea (clinical name aflibercept) is the latest to be approved for use.

The UI study was a pilot, designed to test Eylea's effectiveness in a small cohort for six months. Mahajan is quick to point out further studies are needed to fully evaluate the new drug's efficacy, and he would like to see a trial directly comparing the drugs. Until then, there is another option for AMD sufferers.

"We have a 50-50 chance of making previous nonresponders better," Mahajan says. "And 50-50 is a whole lot better than zero."

## Provided by University of Iowa

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