

Microaneurysm turnover IDs macular edema development

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Microaneurysm turnover independently predicts the development of clinically significant macular edema in patients with non-proliferative diabetic retinopathy, according to a study published online Nov. 30 in *Diabetes Care*.

(HealthDay)—Microaneurysm (MA) turnover independently predicts the development of clinically significant macular edema (CSME) in patients with non-proliferative diabetic retinopathy (NPDR), according to a study published online Nov. 30 in *Diabetes Care*.

Maria Luisa Ribeiro, M.D., from the University of Coimbra in Portugal, and colleagues conducted a prospective observational study involving 410 patients (one eye per patient) with [type 2 diabetes](#) and NPDR and no prior laser treatment. Participants were followed for two years or until development of CSME. MA turnover was assessed using automated analysis of fundus photographs (RetmarkerDR). Ophthalmologic examinations were performed at baseline, six months, and at the last

study visit (24 months or before [laser treatment](#)).

The researchers found that, of the 348 eyes/patients who were followed until the last visit, 26 developed CSME. CSME development was independently predicted by hemoglobin A1c levels at baseline and MA turnover (the sum of the MA formation and disappearance rates) computed during the first six months of follow-up. In the 26 eyes/patients who developed CSME, MA turnover was 11.2 ± 11.2 , compared with 5.0 ± 5.2 in the remaining 322 patients (P

"MA turnover calculated with the RetmarkerDR predicts development of CSME in eyes with NPDR," the authors write. "Low MA turnover values identify well the eyes that are less likely to develop CSME in a two-year period."

The authors disclosed financial ties to the Association for Innovation and Biomedical Research on Light and Image. One author disclosed [financial ties](#) to the pharmaceutical industry.

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