

Study reports two-year outcomes of diabetic macular edema treatment

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A randomized controlled trial involving patients with persistent clinically significant diabetic macular edema (swelling of the retina) suggests the greater efficacy of bevacizumab compared with macular laser therapy that was previously demonstrated at 12 months was maintained through 24 months, according to a report published Online First by *Archives of Ophthalmology*.

Modified Early Treatment Diabetic Retinopathy Study (ETDRS) macular [laser therapy](#) (MLT) has been the mainstay of treatment for clinically significant diabetic macular edema (CSME) for the [last three decades](#). The procedure reduces the risk of moderate visual loss but visual acuity improves (a 15-letter gain at three years) in less than 3 percent of patients so better treatments have been sought, the authors write in their study background.

Ranjan Rajendram, M.D., F.R.C.Ophth., of Moorfields Eye Hospital, London, and colleagues report on the two-year outcomes of the BOLT study, a prospective [randomized controlled trial](#) of 80 patients that evaluated intravitreal [bevacizumab](#) (injections into the eye) and modified ETDRS MLT in patients with CSME.

At two years, the mean (average) ETDRS best-corrected visual acuity was 64.4 (Snellen visual acuity equivalent: 20/50) in the bevacizumab group and 54.8 (Snellen equivalent 20/80) in the MLT group, a mean gain of 8.6 letters for bevacizumab and a mean loss of 0.5 letters for MLT. The bevacizumab group gained a median of nine ETDRS letters

versus 2.5 ETDRS letters for MLT at 24 months compared with baseline. At 24 months, 49 percent of patients gained 10 or more ETDRS letters and 32 percent gained 15 or more letters in the bevacizumab group compared with 7 percent and 4 percent in the MLT group.

"In conclusion, this investigator-initiated single-center study provides evidence for the longer-term use of bevacizumab in the treatment of persistent DME [diabetic macular edema]," the authors note "[Visual acuity](#) benefit was maintained through two years with a reduced injection frequency in the second year despite the long duration of DME and multiple MLTs before entering the study. This finding will be reassuring to physicians charged with delivery of this relatively new treatment."

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