

Diabetic macular edema - treatment with argon laser photocoagulation

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Purpose:

To evaluate effect of photocoagulation using argon laser on visual acuity (VA) in diabetic macular edema.

Methods:

A retrospective review of the visual outcome of argon laser photocoagulation in a group of 111 eyes with clinically significant macular edema. Focal and/or grid photocoagulation was used according to the standards of ETDRS. The follow-up period was 5 years. Improved VA was defined as two or more lines amelioration; deteriorated VA was estimated by two or more lines of decrease on the Snellen chart. No change in VA or a change by 1 line on the Snellen chart was considered insignificant.

Results:

During two - year examination, VA was stabilized in 85 eyes (77%), improvement was observed in 19 eyes (17%) and deterioration was found in 7 eyes (6%). During the follow up of 5 years the group of eyes with stabilized VA decreased insignificantly to 74% (82 eyes). In the group of eyes with improved VA the decrease was 11% (12 eyes). A major change was found in the group of deteriorated eyes - to 15% (17 eyes). In this group an approximately two-fold deterioration was observed: 4% - 8% - 15% in the 1st - 3rd - 5th year respectively.

Conclusion:

6% decrease of VA during two - year examination in our treated group is significantly lower than the 50% decrease of VA observed in groups not treated as published previously. Our results confirm the importance of early laser treatment of diabetic macular edema to prevent blindness.

Take-home message:

Early argon laser photocoagulation in the treatment of diabetic macular edema significantly reduces the risk of blindness.

