Multicenter Study

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Strategy for the management of diabetic macular edema: the European vitreo-retinal society macular edema study

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Abstract

Objective: To compare the efficacy of different therapies in the treatment of diabetic macular edema (DME).

Design: Nonrandomized, multicenter clinical study.

Participants: 86 retina specialists from 29 countries provided clinical information on 2,603 patients with macular edema including 870 patients with DME.

Methods: Reported data included the type and number of treatment(s) performed, the pre- and posttreatment visual acuities, and other clinical findings. The results were analyzed by the French INSEE (National Institute of Statistics and Economic Studies).

Main outcome measures: Mean change of visual acuity and mean number of treatments performed.

Results: The change in visual acuity over time in response to each treatment was plotted in second order polynomial regression trend lines. Intravitreal triamcinolone monotherapy resulted in some improvement in vision. Treatment with threshold or subthreshold grid laser also resulted in minimal vision gain. Anti-VEGF therapy resulted in more significant visual improvement. Treatment with pars plana vitrectomy and internal limiting membrane (ILM) peeling alone resulted in an improvement in vision greater than that observed with anti-VEGF injection alone. In our DME study, treatment with vitrectomy and ILM peeling alone resulted in the better visual improvement compared to other therapies.