

Cost-effectiveness of intravitreal therapy with both anti-VEGF and Dexamethasone implant in patients with Diabetic Macular Edema

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Abstract

Purpose

The aim of this study was to evaluate the cost-effectiveness of intravitreal therapy (IVT) with both anti-VEGF and Dexamethasone implant in patients with Diabetic Macular Edema (DME) during two years' follow-up.

Methods

A retrospective review of 191 patients (382 eyes) with type I and II diabetes and DME was performed. Pre-IVT and final best correct visual acuity (BCVA), central macular thickness (CMT), intraocular pressure (IOP), number and type of IVT, number of examinations, and fluorescein angiography were assessed. Based on surgery procedure other than IVT, patients were divided into 5 groups. To avoid bias, we analysed only patients who had undergone cataract surgery before (group 1) or during enrolment (group 2).

Results

41 eyes from Group 1 and 48 eyes from group 2 were evaluated. Median BCVA ranged between 20/80 and 20/63 Snellen ($P = 0.008$) in Group 1 and from 20/63 to 20/40 Snellen ($P = 0.0035$) in Group 2, while improvement up to 1 Snellen line was observed in 58.5 and 68.75% of eyes in Group 1 and 2, respectively. In terms of median CMT, a statistically reduction ($P = 0.0007$) was found in Group 2 ($-85 \mu\text{m}$), whereas no statistical differences were found in Group 1. The two groups showed no

statistically significant difference in median IOP. The estimated cost per eye was €7803 in Group 1 and €8988 Group 2, whereas the mean cost per patient was €15190 and €16580 in Group 1 and 2, respectively. Analysis between groups did not show any statistical difference in the considered parameters.

Conclusions

In this study, despite the high treatment cost, vision improvement in DME patients undergoing IVT was disappointing. Our results emphasise the need for a better understanding of the cost-effectiveness of DME treatment