

INTRAVITREAL DEXAMETHASONE IMPLANT FOR THE TREATMENT OF DIABETIC MACULAR EDEMA AND MACULAR EDEMA SECONDARY TO RETINAL VEIN OCCLUSION: EFFECTIVENESS EVALUATION

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Introduction

Intravitreal dexamethasone implants are used in hospital settings to treat diabetic macular edema (DME) and macular edema secondary to retinal vein occlusion (RVO).

The implant provides sustained corticosteroid release, reducing inflammation and improving visual acuity.

Untreated DME and RVO may lead to severe vision impairment.

Aim and objectives



To analyse drug utilization and to evaluate clinical effectiveness of intravitreal dexamethasone implants in our Hospital from 2023 to 2024.

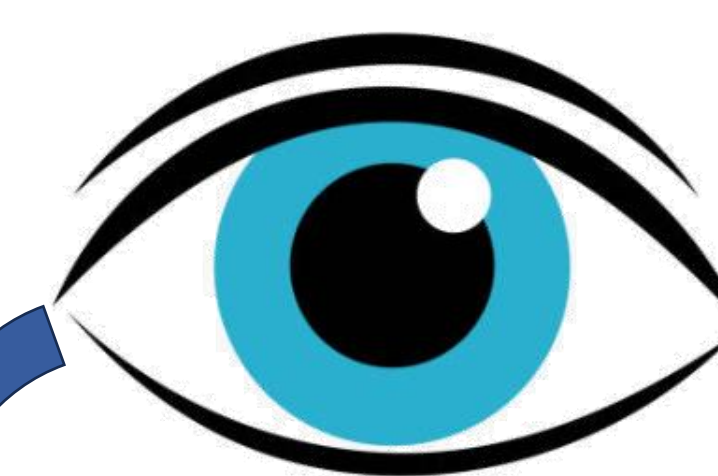


Materials and methods

- Patients' data were obtained from healthcare information systems: we created a database including eye identification, age, gender, diagnosis and date of administration
- We excluded patients managed outside the hospital or with overlapping diagnoses
- For hospital-managed patients with multiple dexamethasone administrations, the final visual acuity was compared to baseline
- The visual acuity was measured using the Best Corrected Visual Acuity (BCVA) scale
- We recorded the therapeutic switches during the study period
- Data were stratified by diagnosis

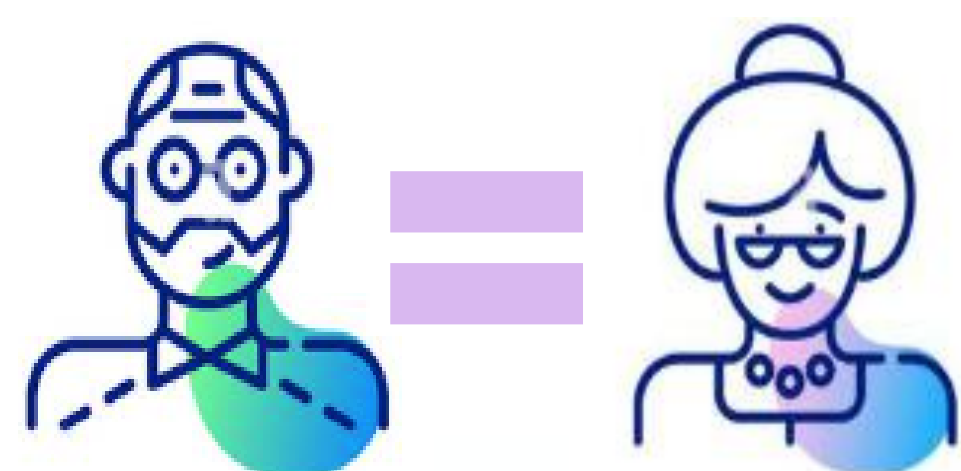
Results

We analysed fifty-nine eyes: 40 with DME and 19 with RVO.



59 EYES

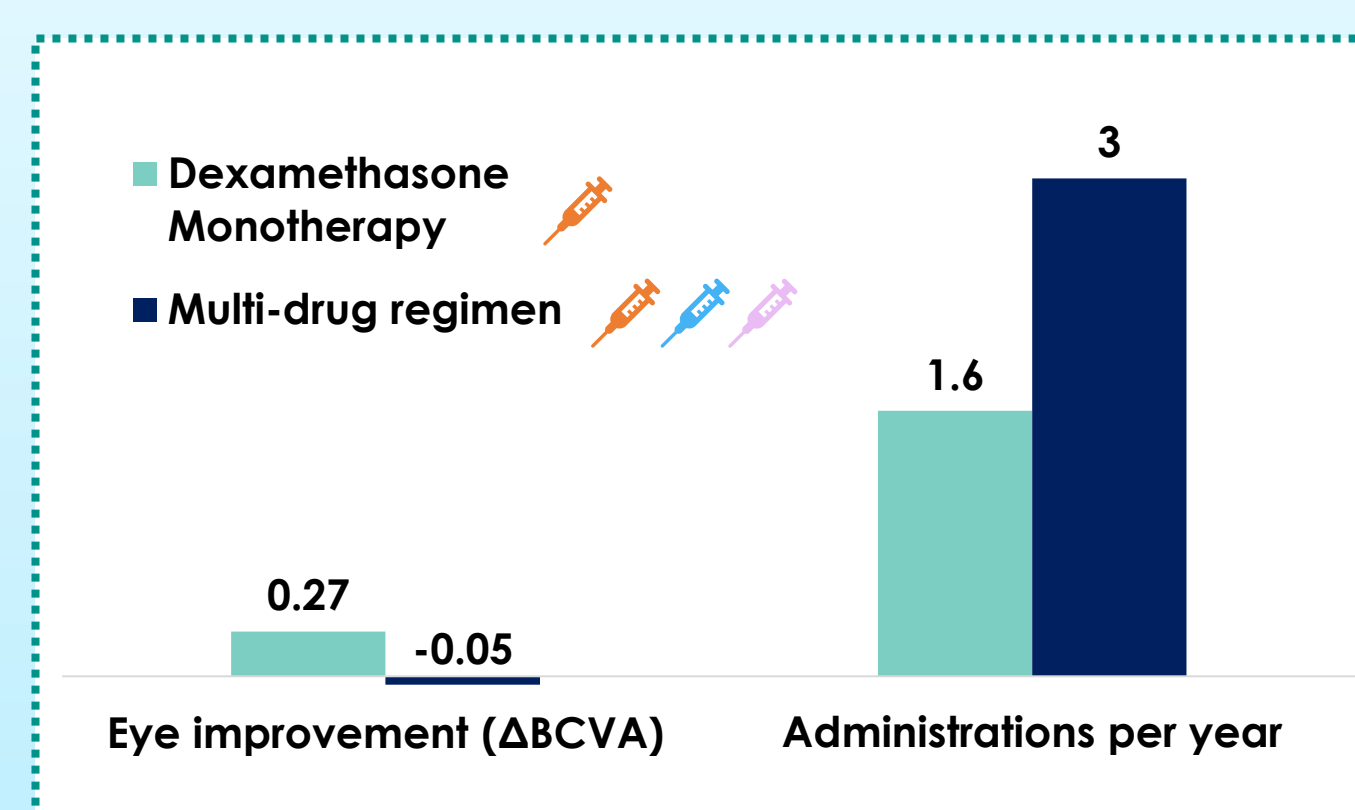
40 DME



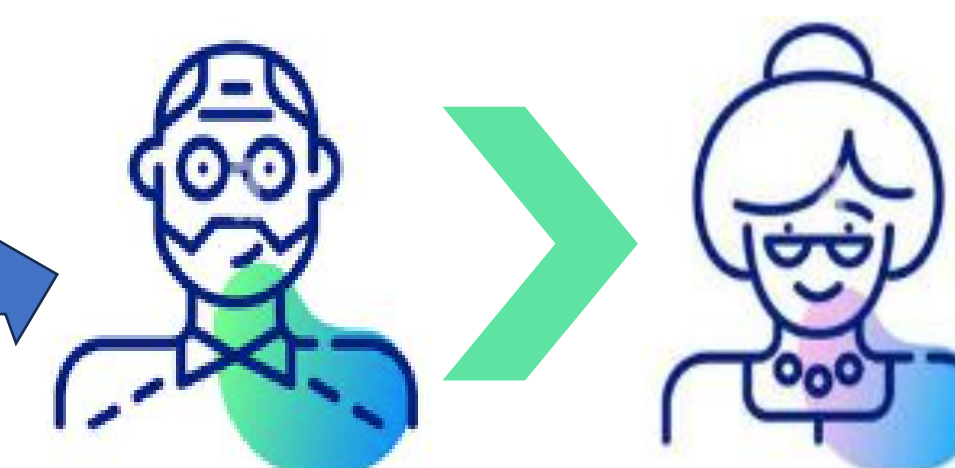
- 50% female
- Mean age 71,7 years

- In the DME group, 16 eyes (40%) received dexamethasone monotherapy, 23 (57.5%) received combination therapy with anti-VEGF agents (aflibercept, bevacizumab or faricimab) and 1 eye received three treatments.
- The average number of administrations over two years was 4.8 (range 2-10).
- Mean visual acuity change was +0.08 (p>0.05), 75% of eyes showed improvement.

- While multiple-treatment eyes showed a -0.05 change with 3 administrations per year, **monotherapy eyes improved by +0.27 with 1.6 administrations per year, with clear benefits in the clinical management of patients.**



19 RVO



- 70% male
- Mean age 74 years

- In the RVO group, most eyes received combination treatment: 3 (15.8%) eyes received monotherapy, 13 eyes (68%) received combination therapy with antiproliferative drugs and 3 eyes received three treatments, with an average of 7 administrations (range 2-16) and a mean visual acuity change of -0.03.

Conclusions and relevance

The intravitreal dexamethasone implant demonstrates effectiveness in stabilizing or modestly improving visual acuity, particularly in DME patients, with a low number of treatments required.

Although variability limits statistical significance, even small gains or stabilization can meaningfully improve patients' quality of life by slowing disease progression and preserving vision.

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