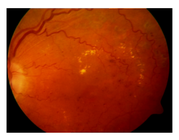
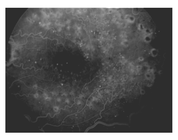
# TRIAMCINOLONE INTRAVITREAL INJECTION RESULTS IN PREVIOUSLY VITRECTOMIZED EYES:





## LONGER EFFECT THAN WE EXPECTED?

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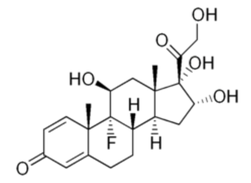




## INTRODUCTION

The treatment of macular edema has significantly improved in recent years.[1-4] Intravitreal triamcinolone acetonide (IVTA) has been shown to improve visual acuity (VA) and reduce central macular thickness (CMT) more effectively than laser treatment in different pathologies[2,3].

IVTA is associated with a low incidence of surgical complications but with some well-known side effects (increase in intraocular pressure, cataract development).[1-4] Several aspects of the off-label use of 4 mg of triamcinolone need to be clarified.

The recurrence of DMO is related to the disappearance of triamcinolone from the vitreous: a mean elimination half-life of 18.6 days has been found and it was estimated that 4 mg of triamcinolone would last in the vitreous for 3 months.[4] In theory, the half-life of this drug should be smaller in previously vitrectomized eyes due to the lack of the vitreous reservoir and a faster wash-out from the vitreous cavity.

## PURPOSE

To analyse the effect of IVTA on CMT in previously vitrectomized eyes.

## METHODS

Retrospective study.

Hospital de Braga, Ophthalmology Department

Eyes with macular edema that had previously underwent 23G pars plana vitrectomy.

The following parameters were analyzed before and after IVTA::

- Best Corrected Visual Acuity (BCVA),
- IntraOcular Pressure (IOP),
- Mean CMT using Optical Coherence Tomography (Cirrus TM HD-OCT Zeiss Meditec®).

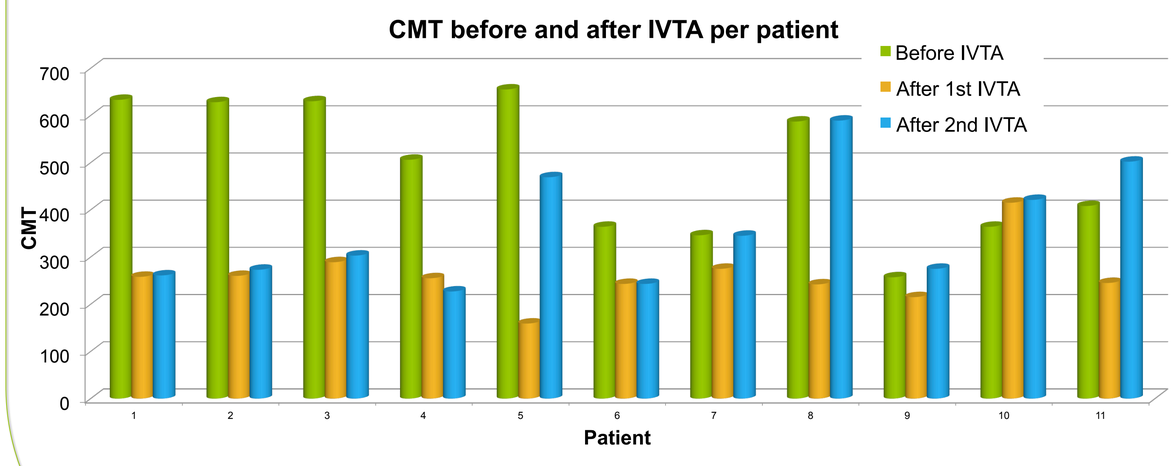
We compared the change in mean CMT and its effect time.

Statistical analysis were performed using paired-sample t-test.

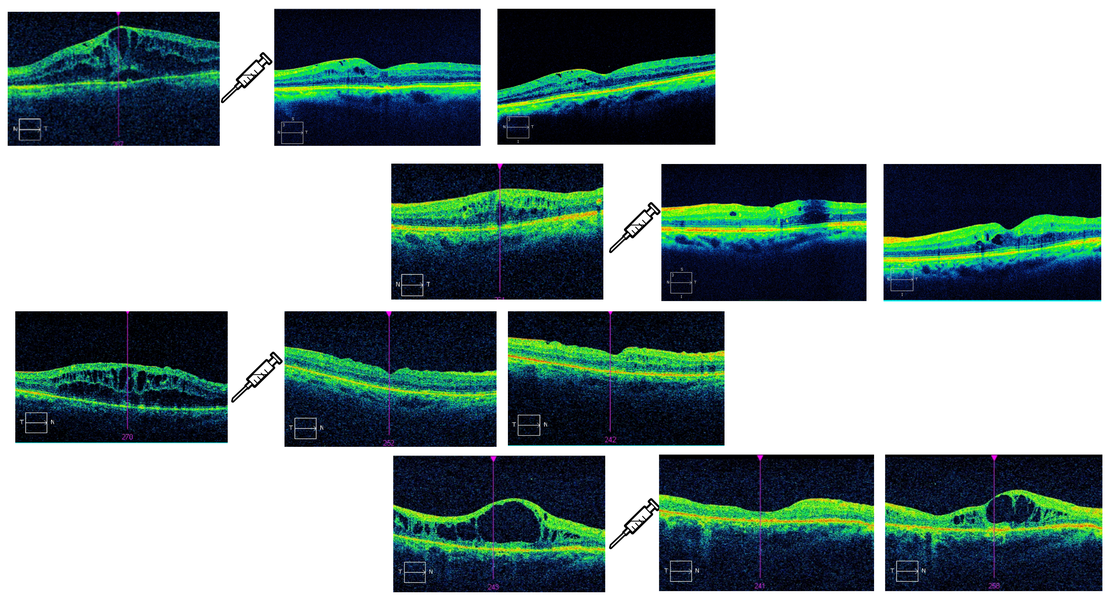
## RESULTS

11 pseudophakic eyes of 9 patients were included as shown below.

| | | |
|---|---|---|
| **Age (years)** | *Mean (±SD)* | 68.2 (±8.65) |
| | *Range* | 57-81 |
| **Sex (n)** | *Male* | 4 |
| | *Female* | 5 |
| **Eye (n)** | *Right Eye* | 6 |
| | *Left Eye* | 5 |
| **Mean time between PPV and IVTA (months)** | *Mean (±SD)* | 11.12 (±4.5) |
| | *Range* | 2.3 – 14.8 |
| **Cause** | *Diabetic Macular Edema* | 9 |
| | *Trauma* | 1 |
| | *Rhegmatogenous Retinal Detachment* | 1 |




| | Before IVTA | After IVTA | paired-sample t-test |
|---|---|---|---|
| Intraocular Pressure (mmHg) | 16.45±2.58 | 19.85±3.34 | 0.0041 |
| Visual Acuity (decimal scale) | 0.22±0.17 | 0.28±0.19 | 0.1329 |
| Central Macular Thickness | 488.91±144.7 | 1st IVTA: 228.64±170,79 | 0.0012 |
| | | 2nd IVTA: 355±121 | 0.0315 (vs. baseline) |



Central Macular Thickness-lowering effect of triamcinolone in vitrectomized eyes lasted a mean (±SD) of 11.62±3.46 weeks.

## CONCLUSIONS

Triamcinolone should be considered in the treatment of patients with persistent macular edema even in vitrectomized eyes. Central Macular Thickness-lowering effect of triamcinolone in vitrectomized eyes approached the time-range of 12 to 14 weeks set for non-vitrectomized eyes.

**REFERENCES**

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