

R1  R2  R3  PG0  PG1  Estagiário  Tecnólogo   
PIBIC Last Name - Paganelli First Name - Fernando Middle -

Service (sector) Pharmacology N° CEP

### **A Single Intraoperative Subtenon Triamcinolone Acetonide Injection for the Treatment of Post-Cataract Surgery Inflammation**

Fernando Paganelli, MD,1,2 José A. Cardillo, MD, 1,2 Luiz A. S. Melo Jr,2 MD, Anselmo G. Oliveira, PharmD, PhD,3 Mirian Skaf, MD, 1 Rogério A. Costa, MD, 1 Suzana A. Tanimoto, MD, 1,2 Acácio A. Souza-Filho, PharmD, PhD,1 Rubens Belfort Jr, MD, PhD,1

1 Hospital de Olhos de Araraquara, Araraquara, São Paulo, Brazil 2 Department of Ophthalmology, Paulista School of Medicine, UNIFESP-EPM, São Paulo, Brazil 3 Pharmaceutical School of Araraquara, State University of São Paulo, UNESP, Araraquara, São Paulo, Brazil

**Abstract Purpose:** To compare the potential of a single intraoperative subtenon triamcinolone acetonide injection with steroid drops in the treatment of ocular inflammation after cataract surgery. **Design:** Randomized, double-masked, controlled trial. **Participants:** A total of 100 patients were prospectively randomized into two groups: 50 patients treated with 1% prednisolone eye drops (control group A) and 50 patients treated with subtenon triamcinolone (treatment group B). **Methods:** All patients underwent phacoemulsification and intraocular posterior lens implantation. After surgery, patients were randomized to receive either (B) an intraoperative 40 mg triamcinolone acetonide subtenon injection or (A) 1% prednisolone acetate eye drops, according to the following schedule: 1 drop 4 times daily (week 1); 3 times daily (week 2); 2 times daily (week 3); once daily (week 4). To mask the study, group B received vehicle drops administered on a similar schedule and group A an intraoperative subtenon injection of a 1 ml balanced salt solution. **Main Outcome Measures:** The main outcome measures included inflammation (cell, flare, ciliary flush), intraocular pressure and lack of response. **Results:** Triamcinolone was shown to have antiinflammatory efficacy clinically equivalent to conventional 1% prednisolone eye drops in reducing intraocular inflammation, as measured by clinical methods. Triamcinolone was found to be as safe as the prednisolone in terms of adverse effects, changes in visual acuity, intraocular pressure, and biomicroscopic and ophthalmoscopic variables. On the 3rd, 7th 14th and 28th postoperative days a significantly lower intraocular pressure ( $P < 0.01$ ) was noticed in the triamcinolone group than in the prednisolone group. **Conclusions:** A single intraoperative 40 mg triamcinolone acetonide subtenon injection demonstrated a clinically equivalent therapeutic response and ocular tolerance to 1% prednisolone drops in controlling postoperative inflammation following uncomplicated cataract surgery and merits further investigation.