( ) R1 ( ) R2 ( ) R3 (X) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC Last Name - Cardillo First Name - Jose Middle - Augusto

Service (sector) Retina and Vitreous Nº CEP

A Comparison of Intravitreal versus Sub-Tenon's Triamcinolone Acetonide Injection for Diabetic Diffuse Macular Edema

Jose A. Cardillo, MD,1,2 Luis A. S. Melo Jr,2 MD, Rogério A. Costa, MD,1 Mirian Skaf, MD,1 Rubens Belfort Jr, MD, PhD,2 Acácio A. Souza-Filho, PharmD, PhD,2 Michel E. Farah, MD,2 Fernando Paganelli, MD,1,2 Anselmo G. Oliveira, PharmD, PhD.3 1Hospital de Olhos de Araraquara, Araraquara, São Paulo, Brazil. 2Department of Ophthalmology, Paulista School of Medicine, UNIFESP-EPM, Sâo Paulo, Brazil. 3Department of Pharmacology, State University of Sao Paulo, UNESP, Araraquara, São Paulo, Brazil **Purpose:** To compare the safety and efficacy of intraocular and sub-Tenos's injection of triamcinolone acetonide (TA) for refractory diffuse diabetic macular edema. **Methods:** In this prospective, randomized, controlled trial, twelve patients (24 eyes) with symmetric diffuse bilateral diabetic macular edema were included and paired eyes of the same patient were randomly assigned to receive either a single 4 mg TA intraocular injection or the fellow eye a posterior 40 mg TA subtenon injection. For main outcome measures visual acuity and quantitative change in optical coherence tomography (OCT) macular thickening were assessed. Potential complications were monitored, including intraocular pressure response and cataract progression. **Results:** Overall both treatment methods resulted in a significant but transient improvement in visual acuity and CMT regression from baseline. The CMT in the intravitreal-injected eyes was statistically significant thinner than in the subtenon-injected eyes at 1 and 3 months after TA injection and the visual acuity in the intravitreal injected eyes was statistically significant better than in the subtenon injected eyes at 3 months after TA injection. Clinical assessment of intraocular pressure did not show any significant difference between the two-triamcinolone acetonide delivery approaches at any follow-up visit and in no eyes the intraocular pressure exceeded 25 mmhg. **Conclusion:** The findings from our study neither advocate nor support the use of corticosteroids for the treatment of diabetic macular edema, but implies that both subtenon and intravitreal TA injections may be equally tolerated with a short term performance clear favoring the intravitreal (4mg) over sub-Tenon's (40 mg) route for all quantifiable anatomic and functional aspects of improvement tested in this investigation.