Outcomes of congenital cataract surgery with intra-operative intra-cameral triamcinolone injection versus postoperative oral prednisolone

Congenital cataract is an important cause of reversible blindness in childhood. Early diagnosis and surgery, adequate refractive error correction and aggressive amblyopia management improve these patients' visual prognosis. However, early cataract surgery is associated with greater risk of complications, possibly due to the enhanced inflammatory response and the more reactive vitreous face in children. The use of corticosteroids for modulating postoperative ocular inflammation was established decades ago. Topical and systemic corticosteroid administration results in effective intraocular concentrations. However, they do not maintain long adequate concentrations of the drug in the aqueous humor, which is compensated by frequent doses in the postoperative period. This, in turn, increases the risk of adverse events. Moreover, caregivers do not always adhere to the instructions for administering drugs postoperatively, a scenario favoring complications that may compromise the visual prognosis. In contrast, intraocular injection of corticosteroid delivers an adequate and sustained quantity of the drug to the target tissue. Triamcinolone acetonide is a deposit corticosteroid with low water solubility, which contributes to its prolonged action. It has been increasingly used in ophthalmology as a vitreous dye in children and adults, as well as to modulate intraocular inflammation after phacoemulsification in adults. However, its use is not exempt of risks. Thus, we conducted a series of studies to investigate and compare the use of intracameral triamcinolone at the end of the procedure versus the conventional use of postoperative oral prednisolone for modulating intraocular inflammation in children that undergo congenital cataract surgery younger than 2 years of age.

Biography
Marcelo C Ventura was graduated from the Medical School of the University of Pernambuco, in Recife, Brazil and completed his Residency training at the Santa Casa de Misericórdia São Paulo, Brazil. He has completed his Fellowship training in Retina and Cataract Surgery at the University of Puerto Rico. He has also obtained his Master and PhD degrees at the Federal University of Sao Paulo. He is the Co-Founder and CEO of the Altino Ventura Foundation and Co-Founder and Member of the Board of Directors of the HOPE Hospital, both in Recife, Brazil. He was also the past President of the Latin American Society of Cataract and Refractive Surgeons and of the Brazilian Cataract Society.