

10th International Conference on

Clinical & Experimental Ophthalmology

November 21-23, 2016 Dubai, UAE

Posterior chamber toric phakic intraocular lens implantation for the correction of astigmatic anisometropia and treatment of amblyopia

Talal Althomali

Taif University, Saudi Arabia

Amblyopia is one of the leading causes of acquired monocular visual impairment, with an estimated prevalence in the pediatric population ranging from 2.9-7.5%. Younger children, especially those younger than 6 years, with myopic anisometropia greater than 2 diopters (D), hyperopic anisometropia greater than 1 D and astigmatic anisometropia greater than 1.5 D are at increased risk to develop persistent and intractable amblyopia without adequate therapy. Previous research has demonstrated that optical correction of astigmatism (i.e., restoration of normal visual input) can be an effective means of treatment for anisometropic amblyopia with astigmatism during early childhood. Unless amblyopia is successfully treated in early childhood, it usually persists into adulthood, significantly increasing the risk of permanent visual impairment. In children with high refractive errors, spectacle correction may not be the most desirable medical therapeutic option due to induction of anisokonia and potential loss of binocular fusion. Therefore, contact lens wear is the optimal method of medical treatment for high ametropic amblyopia. However, some children resist contact lens wear and both parents and children find the placement of contact lenses to be difficult and distressing. With the availability of toric PIOLs to correct preexisting astigmatism, it is now possible to target emmetropia and achieve a much higher level of spectacle independence in astigmatic patients. Patients with high anisometropic amblyopia with astigmatism could certainly benefit from toric PIOL implantation. To our knowledge, this is the first study that reports the outcomes of the implantation of toric PIOLs in children with anisometropic amblyopia with astigmatism. Eleven eyes of 10 amblyopic patients aged 5 to 15 years underwent toric PIOL (Visian Toric ICL; STAAR Surgical Company, Monrovia, CA) implantation for refractory anisometropic amblyopia. Preoperative and postoperative clinical evaluation included slit-lamp microscopy, visual acuity, anterior/posterior segment examination and cycloplegic refraction. Toric PIOL implantation may be a viable therapeutic modality in children with clinically significant anisometropic ametropia and astigmatism with secondary amblyopia that have been refractory to medical treatment including spectacles or contact lenses. Longer follow-up visits with larger sample populations will evaluate more effectively the long-term efficacy and late-onset of complication.

Biography

Talal Althomali is an Associate Professor of Ophthalmology and the Vice Dean of Hospital Affairs at Taif University and a Consultant Physician of Pediatric Ophthalmology at King Khaled Eye Specialist Hospital, Riyadh and King Abdul-Aziz Specialist Hospital, Tertiary and Referral Center in the Western Region, Saudi Arabia. With outstanding educational and research activities, he has excellent experience in surgeries. He is active member of numerous ophthalmology organizations. Actively participated in many ophthalmology meetings including American academy meeting 2014, American Society of Cataract and Refractive Surgeons 2014, European Society of Cataract and Refractive Surgeon 2008-2015, World Congress of Pediatric Ophthalmology and Strabismus 2012 & 2015 and International Ophthalmology Congress 2014, where some of his research was selected to be amongst the top studies .

tthomali@hotmail.com

Notes: