Introduction

Myopia & hypermetropia are prevalent ocular diseases, myopic eye is one in which the dioptric system lies in front of the retina, while hypermetropic eye is one in which the dioptric system lies behind the retina ***(Curtin, 1985).***

Myopia & hypermetropia can be corrected by 3 different means: Optical devices (e.g., glasses, contact lenses) , Corneal refractive procedures (e.g., radial keratotomy [RK], automated lamellar keratoplasty [ALK], photorefractive keratectomy [PRK], laser-assisted in situ Keratomileusis [LASIK]) , Intraocular procedures (e.g., clear lens extraction with or without lens implantation and the use of Phakic intraocular lens [IOL] implants) ***(Stonecipher et al., 2002)***.

The important facets of each procedure are the ease of application, the accuracy, the period of recovery, the quality of vision, the long-term stability of the results and the minor or major complications. The possibilities of the reversal of the procedure and the successful management of complications are also should be considered ***(Malecaze et al., 2002)***.

Phakic IOLs were introduced in the 1950s by Jose Barraquer, and it consists of implantation of an IOL inside the eye without removal of the original lens. The technique was not popular, especially with the emergence of other refractive surgeries. Because of the optical and anatomical limitations of other refractive surgeries, Phakic IOLs returned to use again specially with errors of more than -12.00, and are becoming more and more popular (***Hardten et al., 2004).***

The outcome of Phakic IOL implantation has been rather favorable, with significant improvement in uncorrected visual acuity and tolerable visual symptoms in terms of glare and halos ***(Batra and Mcleod, 2001)***.

All the various Phakic IOLs, whether angle supported, iris supported, or placed in the posterior chamber, provide good immediate postoperative results. However, frequent change in the designs of the angle-supported and the posterior chamber lenses makes conclusions about long-term stability difficult. **(Pineda-Fernandez et al., 2004)**

Contrary to aphakic IOL which can fit in the space created by removed cataract, Phakic IOL must fit within the space available in the anatomically normal ocular segment (***Chen, et al., 2008).***

The early problems are related to the design of the lens and the meticulous details of surgery. The late postoperative complications are related to the interaction of the IOL and the intimate ocular tissues during the lifetime of the patient. Lifelong, regular follow-up care is essential in all cases ***(Kohnen and Kasper, 2006).***

At last, Phakic IOL is only one of many modalities to alleviate myopia & hypermetropia , but several attractions for implanting Phakic lenses (e.g. minimal surgical injury to ocular tissues) make it highly predictable and hopeful lasting ***(Kalyvianaki et al., 2007).***

Aim of the work

To review the recent advances regarding different types, methods and hazards of implantation of Phakic intraocular lenses and to discuss how to avoid these complications.