INTRODUCTION

The advantages of small incision cataract surgery include less inflammation and increased wound strength plus the possibility of performing astigmatically neutral incisions or incisions to correct the preexisting astigmatism. Small incision cataract surgery has made the procedure both a therapeutic and refractive procedure. Phacoemulsification allowed cataract surgery to be performed through wounds as small as 3.2mm. ***(Rosen et al, 1995)***.

With improved techniques, surgeons have been paying close attention to the astigmatic effect of their surgeries. Work has accelerated in the last several years, and this has led to the use of incisions that close with no sutures at all. Although the ophthalmic surgeon has been concerned with postoperative corneal astigmatism, there has been much confusion in explaining the pathophysiology of postoperative changes in corneal curvature ***(Jaffe et al, 1997)***.

Developments in wound construction have led to the routine use of sutureless, self-sealing tunnel incisions. Incision size, configuration, and location are important determinants of wound stability, astigmatic change, and visual outcome after cataract surgery. To further reduce incision size, foldable IOL have been developed ***(Schein et al, 1995; Long et al, 1996 and Kohnen et al 1997,).***

Self-sealing tunnel incisions may be scleral or clear corneal. Clear corneal cataract surgery, is increasing in popularity. Because it is done intracorneally, cauterization is unnecessary. In addition, topical anaesthesia can be used in most cases, eleminating the risk of anaesthesia administered by injection ***(Pfleger et al, 1996 and Menapace et al, 1994b).***

Much more information about corneal shape or topography, can be obtained by videokeratography. The color dioptric map is an important advance because it allows visual inspection of optical zone size, centeration and regularity ***(Maloney et al, 1993).*** Corneal shape changes after cataract extraction are usually wound related and asymmetric. Asymmetric flattening, which is restricted to the area adjacent to the incision is missed by the keratometer but not by the videokeratoscope in most cases ***(Martin et al, 1993a and Vass et al, 1996).***

Corneal topography analysis which is much more detailed than the two figure results of conventional keratometry has proved, valuable in many surgical and diagnostic situations ***(Olsen et al, 1996).*** Only corneal topography can produce a fine mesh grid of induced shape changes throughout the cornea and only statistical batch-by-batch analysis of corneal topography can show better results ***(Vass et al, 1994).***

In some cases corneal topography can be used to explain apparent discrepanices between keratometric measurements of surgically modified astigmatism and postoperative visual acuity ***(Sanders et al, 1993).*** Computerized videokeraography (CVK) brings new insights to the assessment of the astigmatic changes that occur over most of the corneal surface ***(Koch et al, 1993a).*** Many anterior segment surgeon use corneal topography in planning and monitoring their cataract and refractive surgery ***(Seiler et al, 1993).***