INTRODUCTION

Introduction

The term presbyopia means a physiological recession of the near point of distinct vision beyond the normal reading or working distance with accommodation fully exerted.

Presbyopia is an inevitable problem. Each year approximately 51 million people become presbyopic according to demographic estimation *(Neal, 1996).*

Our understanding of the etiology of presbyopia is derived principally from our understanding of the mechanism of accommodation in young eyes *(Neal, 1996).*

Surgical treatment concepts and methods for presbyopic refractive surgery include:

1- Scleral surgery includes two approaches :

a) Scleral expansion using (SEB) is performed through implanting four arched PMMA implants in a scleral tunnel. It allows stretch of the sclera over the location of the implant, which increase the distance between the ciliary body and the lens. This appears to increase the amplitude of accommodation by of 4-6 diopters *(Ellis, 2000).*

b) Anterior ciliary sclerotomy (ACS). This is an incisional technique. It consists of eight or more partial thickness radial incisions into the sclera over the region of ciliary body. These incisions allow the sclera to expand giving more room for the eye to accommodate. Increase of amplitude of accommodation is about 2 diopters with slight regression ***(Thornton, 1996).***

2- Corneal surgery for presbyopia:

a) Small diameter intracorneal inlay lens : The idea of this method is to implant an intracorneal hydrogel lens ***(Lindstrom,1996).***

b) Monovision which is based on conceptof correcting one eye for distance and the other for nearby using PRK or LASIK ***(Jain et al., 1996).***

c) Multifocal cornea is an approach to correc presbyopia by using PRK or LASIK ***(Moreira et al., 1992).***

3- Crystalline lens surgery for presbyopia is perfomed by:

a- laser modification of crystalline lens.

b-Multifocal intraocular lens implantation .