REVIEW OF LITERATURE
The first person who probably mentioned the possibility of lens implantation was a peripatic ophthalmologist of the 18th century named Tadini.

In 1795 casseusata the court eye doctor of Dresden performed cataract operation and implanted an artificial lens. The artificial lens was made of a glass and it was inserted through wound of cornea into the eye. He realised however that the glass lens could not substitute for the natural lens because during this experiment, the glass fell on to the bottom of the eye.

In 1949 at the end of cataract operation Ridley was asked by a medical student why he did not replace the sick lens with a new one. This question gave Ridley the impetus to explore the possibility of lens implantation. He designed a lens to imitate the natural lens, made of acrylic material after seeing as particles of inert material lodged in the eyes of fighter pilots injured during world war II.
The first intraocular lens was implanted by Ridley into the capsular bag following extracapsular cataract extraction at St. Thomas Hospital London on 29th November 1949 and second was implanted on 23rd August 1950. Ridley implanted approximately one thousand of his original IOLs. Many of his cases remain successful as late as 1966. By 1970 15% of his implants were removed.

Around 1959 Ridley's lens implantation were given up due to numerous postoperative complications like severe postoperative reaction, iritis, oclusion of the pupil by dense inflammatory membrane, late thickening and opacification of the posterior capsule, loss of anterior chamber, hyphaema, secondary glaucoma, iris atrophy from pressure by PMMA, decentering and IOL dislocation. Decentering and IOL dislocation were common. These were as a result of inadequate support and stabilisation of the fairly heavy IOLs. In 1954 Parry attempted to solve the problem of dislocation by anchoring the Ridley IOL by means of a tantalum thread with the ends left loose beneath the conjunctiva. Ridley's lenses are described as first generation lenses.
The complications and technical difficulties associated with original Ridley posterior chamber IOL led to attempt to place the pseudophakos in the anterior chamber using the angle recess for fixation purpose. There were several major advantages of anterior chamber fixation like implantation could be performed after either intracapsular or extracapsular cataract extraction, as secondary implantation and minimum dislocation of the IOL. These are described as second generation lenses.

Danheim in 1952 designed the first flexible closed loop type of anterior chamber lens. This lens failed because the haptic were manufactured from nylon (Supramid-6). This polymer undergoes a hydrolytic biodegradation when implanted in biological tissues. This led not only to irritation within the eye but to the breakdown of the loops and actual disintegration of the IOL with dislocation. Barraquer modified the Danheim lens and his own closed loop anterior chamber lens by cutting away one half of the closed loop in essence creating the first J-loop intraocular lens.
The Strampelli tripod anterior chamber lens was first implanted on September 28, 1953. This became the prototype of rigid type anterior chamber lens.

Baron on 13 May 1953 was the first to implant an anterior chamber lens. It had the shape of a curved disc bent toward the cornea to such an extent that it came into contact with corneal endothelium. This introduced a problem that has been frequently encountered with many other style of anterior and iris supported IOLs, namely direct contact with the corneal endothelium leading to corneal decompensation.

The first choice rigid anterior chamber (Mark I) appeared in 1956. Numerous modification of this lens have culminated in the production of the mark VIII and mark IX IOL. Complication such as uveitis glaucoma hyphema (UGH) syndrome of Ellingson were initially attributed to warped foot plates and poor edge finish on some poorly made copies of choice IOLs. However these problem have been corrected by improvement in manufacturing techniques. Thus various modern anterior chamber lens have been produced since 1980 (Table-1).
The most popular anterior chamber lenses at present are shepard universal IOL, Panusa universal IOL, universal radial C-loop IOL, Freeman universal IOL.

In June 1953 the development of iris supported lenses began with the introduction of the Epstein 'Collar Stud' lens. This was essentially an anterior chamber lens with iris fixation. The original iris clip lens was developed by Binkhorst in 1957 and was used for the first time on August 11, 1958. Binkhorst designed his lenses based on the facts that PMMA is well tolerated, posterior chamber lenses had, had a strong tendency to dislocate, anterior chamber lenses had a strong propensity to cause corneal complication, Ridley posterior chamber lens with posterior surface of iris did not in itself give rise in any complication. He believed that iris atrophy and its consequence were caused by uveitis and not by contact.

In effect the idea of iris fixed lens represented an attempt to avoid major complication of posterior chamber lenses and the most important namely corneal touch and decompensation.
Other modifications of iris supported IOLs included Sinkhorst modification of his original IOL (Sinkhorst 2 loop iridocapsular lens) the use of metal as a loop material, the introduction of Epstein Maltese cross lens (which evolve into the Copland lens) introduction of Fyodorov Style ICL (Sputnik iris clip lens), the worst Medallion Trido capsular lens and Worst platinum lens. Many of the these iris supported lenses were very successful and did much popularise the concept of intraocular lens implantation throughout the world. However various long term complications were noticed with these IOL styles in many cases. This led to an eventual abandonment of these styles in favour of well designed modern anterior chamber and posterior chamber lenses. From 1975 to the present information from the extensive clinical experience with IOL during the past decade has contributed to a rapid and highly innovative era of IOL development of utmost importance has been the increasing use of ICCE and posterior chamber implantation. Numerous modern well designed anterior chamber IOL have been introduced. There has been continuous improvement in lens design and in IOL manufacturing techniques are fore more refined and are safer. This is the era where
iris supported lenses began to give way to the more
modern ICL styles. This era has also seen the trans-
ition from nylon to polypropylene and PMMA as loop
material.

Lens implantation intensified the interest
in the corneal endothelium. New methods of examination
(such as specular microscopy, pachymetry scanning
electron microscopy) are constantly expanding our
knowledge of the physiologic, physical and chemical
properties and role of the endothelium. New ways are
being sought to protect the cells by using safer
material (different plastics, glass, silicone etc.)
which are less toxic and dangerous to the endothelium
than PMMA, by coating existing lenses with such
substances as methyl cellulose, sodium hyaluronate
(Healon), chondroitin sulfate and serum. Ultraviolet
rays filtering dyes are added to the lens to protect
the macula from harmful radiation.
Table 1

Evolution of intraocular lenses

<table>
<thead>
<tr>
<th>Generation I (1949-54) original Ridley posterior chamber</th>
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<tbody>
<tr>
<td>1. Ridley 1949</td>
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<td>2. Parry (Implantation modification, 1954)</td>
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<tr>
<th>Generation II (ca 1953-1962) Development of anterior chamber lenses</th>
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<tr>
<td>1. Rigid or Semirigid</td>
</tr>
<tr>
<td>Baron 1952, 1954</td>
</tr>
<tr>
<td>Scharf, 1953</td>
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<tr>
<td>Strampelli tripod, 1953</td>
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<tr>
<td>Schreck, 1954</td>
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<tr>
<td>Diotti, 1955</td>
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<tr>
<td>Choyce Mark I 1956</td>
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<tr>
<td>Ridley Mark I and II 1957, 1960</td>
</tr>
<tr>
<td>Boberg - Ana 1961</td>
</tr>
<tr>
<td>2. Flexible or semiflexible loops</td>
</tr>
<tr>
<td>a. Closed loops</td>
</tr>
<tr>
<td>Dannheim 1952</td>
</tr>
<tr>
<td>Strampelli 1956</td>
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<tr>
<td>Lieb and Guerry 1957</td>
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<tr>
<td>b. Open loops</td>
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<td>Barraquer, J-loop 1959</td>
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<tr>
<th>Generation III (ca 1953-1970) Continued development of anterior chamber lenses and introduction of iris-supported lenses</th>
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<tr>
<td>Anterior chamber</td>
</tr>
<tr>
<td>1. Rigid or Semirigid</td>
</tr>
<tr>
<td>Choyce Mark II 1957 to Choyce Mark VIII, 1963</td>
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<tr>
<td>2. Flexible</td>
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</table>
Iris supported

Epstein "Collar stud" lens, 1953
Binkhorst iris clip 1957, 1958
Epstein Maltese cross (Evolved into Copeland-Binkhorst lens) 1962
Fyodorov type I iris clip 1964
Binkhorst iridocapsular 1965
Fyodorov V-type II Sputnik iris clip 1968
Worst Medallion iridocapsular, early 1970
Worst Platina early 1970

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Generation IV (Ca 1975 to present) - Major improvement in microsurgical techniques, lens designs and lens materials, introduction of posterior chamber lens.

Anterior chamber lenses

1. Rigid or semirigid
   - Azar Mark II 1977
   - Tennant Anchor 1974

2. Flexible or semiflexible loops or footplates
   a. Closed loops
      - Leiske 1978
      - Hessburg 1981
      - Optiflex 1981
      - Azar 912 1982
      - Stable flex 1983
   b. Open loops or footplates
      - Kelman II 3-point fixation 1978
      - Kelman Quadriflex 1981
      - Kelman Omnifity 1981
      - Kelman Multiflex 1982
   c. Radial loops
      - Copeland 1982
COMPLICATIONS DURING CATARACT EXTRACTION

The occurrence of vitreous loss has been shown by J. Watts (1979-1983) in 3 cases out of 101 patients. Ghelam A. Payman cited the incidence 2-4%. The figure of OCTET (1984) was 2 out of 56 cases.


The incidence of unplanned extracapsular extraction has been reported to be 4% (Ghelam A Payman) OCTET (1984) reported in 2 cases out of 56 cases.


The incidence of hyphaema encountered by Oxford cataract treatment and evaluation team (OCTET) (1984) was 4 out of 56 cases, in another study it was 2 out of 42 patients. OCTET (1984) encountered torn iris in one case out of 56 cases.
Expulsive haemorrhage is one of the most dramatic and serious complication of cataract surgery. Fortunately it occurs in only 0.1 to 0.2% of all cataract extraction (Gholam A. Peyman, Duke elder).

Operative Complications in Cataract Extraction with IOL Implants

Orbital haemorrhage is a major complication of retrobulbar injection. Nikhil C. Kaushik (1981-1983) encountered in 26 cases out of 3453 patients Subhash P. Kadam (1987) saw in 6 cases out of 146 patients. All cases with retrobulbar haemorrhage were postponed for operation.

With the modern microsurgical techniques vitreous loss is estimated to occur in 2 to 4% (Gholam A. Peyman). In a study of 100 cases Vilas Bidaye (1986) reported vitreous loss in 2% cases, other authors like R.K. Mishra et al (1986) reported in 2 cases in a series of 183 patients, J. Watts (1979-1983) reported in 1 case out of 44 patients. In a series of 53 (eyes) it was reported to be 26% (Arch ophth 1987). Vitreous loss follows lens extraction when the vitreous is either pushed out of the eye by external pressure on the globe or pulled out by vitreous
attachment to the lens. It is postulated that a subclinical subchoroidal haemorrhage or serous choroidal effusion could also cause unexplained vitreous prolapse (Chohan A. Feyman).

S. Mhatre et al (1984-86) in a study of 100 cases described disturbances of vitreous face. If vitreous remains in the anterior chamber with treatment the implantation should be abandoned.

**INTRA OPERATIVE SHALLOWING OF ANTERIOR CHAMBER**

Prolapsing iris and bulging of vitreous causes shallowing of anterior chamber during operation. M.C. Mahata (1985) in a study of 20 cases reported vitreous bulge in 2 cases, bulging of iris lens diaphragm in 2 cases. Subhash P. Kadam (1987) reported high vitreous pressure in 4 patient in the study of 146 cases and described that if vitreous pressure (Positive vitreous pressure) is high, no implantation should be carried out. In shallow anterior chamber, it is difficult to retain the anterior chamber with air. Air usually escapes when the lens is being inserted. Tucking of iris commonly occur. With the use of vision these complications are nil (S. Tony Fernandez 1989).

Hyphaema: It is usually not significant and stops
spontaneously (S. Bharti et al 1984-1986). The source of bleeding may be from iris and schlemm's canal (Subhash P. Kada 1987). He reported hyphema in 18 cases out of total 146 patients. In another study it was encountered in 8% cases (AJO 1989).

Incarceration of haptic into wound and iris: on occasion especially during learning phase of the surgery one or very rarely two feet of haptic of an anterior chamber angle fixed lens may not be placed properly under the scleral edge but left in the wound (Fechner) S. Bharti et al (1984-1986), in a study of 100 cases described about difficulty in introduction of the IOL, tucking of the iris with the haptic and breaking the foot of the intraocular lens during implantation in the anterior chamber. Lens loop may be engaged in the iris if pupil is kept dilated during implantation (Subhash P. Kada 1987).

POST OPERATIVE COMPLICATION IN CATARACT EXTRACTION WITH IOL IMPLANTATION IN ANTERIOR CHAMBER

A mild degree of corneal oedema with folds in descemeta membrane is commonly seen post operatively. It indicates the extent of operative trauma to the corneal endothelium (Fechner). The incidence of Striate Keratitis (Mild to moderate) has been reported 70%
(R.K. Mishra et al 1985) in a series of 183 patients, Daljit Singh et al (1984) encountered in 18.1% (with visilon) 12% (IOL without visilon) in an experimental study on rabbit. O.P. Billere, et al (1986) reported in 20-3% (with rigid anterior chamber IOL) and 19.82% (Flexible IOL) in the study of 500 patients. It was 2% incidence in the study of Vilas Bidaye (1988) in 100 cases of intracocular lens implantations. Various other authors reported incidence of striate keratopathy in different series of studies like 8 cases in a study of 146 cases (Subhash F. Kadam, 1987), in 4 cases (without visilon) and 6 cases (with visilon) in series of 60 IOL Implants (S. Tony Fernandez et al 1986). Slight in 19.6% and moderate in 9.5% cases out of 100 cases (Daljit Singh et al 1983) in 2 cases in a study group of 12 patients (K.S. Raju 1983) and in 15 cases in the study group of 20 cases of M.C. Mahata (1983), he also reported corneal edema in 15 eyes in the same study group. Post operative iridocyclitis may occur due to infection or may be related to surgical manipulation or occurring as a response to transient breakdown of blood aqueous barrier. The incidence of iridocyclitis was reported by R.K. Mishra et al (1985) to be mild
22%, moderate 63% and severe 11% in a study group of 185 patients. In the same series the incidence of vitreitis was 4-5% and endophthalmitis nil. In a study group of 500 IOL implantation O.P. Billore et al (1986) encountered uveitis in 14.7% (Rigid anterior chamber IOL) and 9.8% (flexible IOL) and 2% was found in a study group of Vilas Bidaye (1988). In the study group of 146 cases, Subhash P. Kadam noticed iritis in 17 cases (mild) 6 cases moderate and severe in one case.

A shallow or flat anterior is an absolute emergency in the eyes that have anterior chamber IOL. Since the contact between IOL and corneal endothelium is extremely damaging to the cornea. The majority of such cases result from wound leak (Fechner). Daljit Singh et al (1983) reported the incidence 1.6% in case study of 100 patients. In a study of 128 patients S. Bharti et al (1984-1984) also encountered similar incidence.

M.C. Mahata (1983) reported in 4 eyes (of 20 eyes). In S. Tony Fernandez et al’s study group of 60 patients mild iritis occurred in 2 (done without visilon) and 4 (where visilon was used). In another series of 100 cases, Daljit Singh et al (1983) studied
in 11.5% cases severe uveitis was reported in 0.9% (R.K. Mishra 1989), persistent iritis 0.4-1.2% (F.D.A. study). 3 patients out of 7 patients (Daljit Singh 1980), N.S. Raju (1983) reported persistent uveitis in 8-66% cases. Infectious endophthalmitis is a potentially devastating complication of any surgical procedure including IOL implantation most studies have found that infections endophthalmitis does not occur with high frequency following IOL implantation than one could anticipate following simple cataract removal. Two major epidemic occurred in 1975 and 1976 (Apple D.J. et al 1984, Fechner, Alpar). The cause of infectious endophthalmitis was contamination of neutralising solution (Sodium bicarbonate). In 1975 13 patient developed fungal endophthalmitis following IOL implantation. In 1976 8 patient developed pseudomonas aerogenous endophthalmitis. The incidence of toxic lens syndrome (Sterile endophthalmitis) has been reported to be 7% by the pack method and 1.3% wet pack method of sterilization (Apple D.S. et al 1984, Alpar 1982). In a study group of 146 patients Subhash P. Kadam (1987) reported endophthalmitis in one case 4 months after operation.
In the study group of 158 cases S. Bharti et al (1985) also encountered iritis and endophthalmitis. There was no incidence of endophthalmitis or any kind of infection in study group 185 patients (R.K. Mishra et al 1985) and 25 patients of Y.M. Paranjpe (1983) study.

In a study group of 220 cases R.K. Mishra et al (1989) in 5 years study period revealed iris atrophy in 60%, pupillary capture 4.5%, tilt or rotation of IOL in 8.1%, irregular anterior chamber depth in 2.2% liberation of pigment in 50%, K.P.'s 2.2%. In IOL implanted cases Y.M. Paranjpe (1983) found iris pigment deposits on IOL surface and anterior vitreous face on 3rd day which reduced after 15 days of operation. M.S. Jaju (1983) did not find pigment deposits on the IOL in a study group of 12 patients. There was no incidence of dislocation. The circumsacular flush of low grade persisted in 6 cases (50%) for 2-3 weeks. The incidence of iris tuck, dislocation, iris atrophy was nil in a study group of Daljit Singh (1980). J. Watts (1979-1983) did not encounter iris tuck, pupil block and iris prolapse in the study of 44 patients implanted with intraocular lens in the anterior chamber.
Tucking of iris (entrapped fold of peripheral iris tissue) in the angle by haptic, usually occur during insertion, if IOL is angled too posteriorly. An oval pupil with vertical axis parallel to the axis of the IOL is characteristic, but this may not be readily apparent when the pupil is partially dialated at the time of surgery. R.K. Mishra et al (1985) reported in the study group of 185 patient the incidence of iris tuck and distored pupil in 13% cases, riding of pupillary margin over the lens in 2% cases, upper loop engaging in iridectomy in 2% cases, axial rotation of the lens in 5% cases, adhesion between the lens and iris in 4% cases, anterior dislocation and superior loop slipping out in 0.3% air behind the implant in 1.6% cases, precipitate deposition on the IOL with no uveitis in 7% cases. Mild distortion of the pupil was found in 3% moderate in 4.9% and marked 2%. Iris atrophy at the contact with IOL was in 10.9% (mild), 1.6% (moderate) and 2.1 (severe). In a study group of 500 patients C.P. Billere et al (1986) reported iris tuck in 22.02% (Rigid IOL) and 8.19% (flexible IOL), pupillary distortion in 28.16% (Rigid IOL) and 8.13% (flexible IOL), lens matter in pupil 9.68% (Rigid IOL)
and 1.16% (flexible IOL), pigment dispersion in 24.22% (Rigid IOL) and 13.11% (flexible IOL). Vilas Bidaye (1988) reported opacification of lens in 1% in a study of glass lenses in 100 patients. Subhash P. Kadan (1987) reported in his study group of 146 cases the incidence of iris tuck in 6 cases and internal iris prolapse 4 cases. The tremulousness of the implant occurred in 2 cases. Ciliary tenderness was found in 2 cases.

Jonathan N. Frantz (1988) reported 5 cases with 85 J4 anterior chamber IOL had pain photophobia, diminished vision. There was pigment with flare seen in the anterior and posterior surface of the optic of the IOL which had bowed backward touching the anterior iris stroma.

The cornea can decompensate if large amount of endothelial cells are lost depending on surgical technique and type of IOL used, the implantation of IOL following cataract extraction may be more harmful to corneal endothelium than simple cataract extraction (Alpar and Fechner). Average endothelial cell loss following routine intra capsular cataract extraction has been shown to vary between 8% and 12%.
(Jaffe et al), Worst et al (1984) documented that even momentary contact between PMMA and endothelium caused 20 to 30% cell loss in rabbit and human corneas. In Jaffe's series 35 to 40% endothelial cell occurred in IOL cases (Forstot et al 1977). In Gould's (1980) series the average cell loss was 50% compared with the about 10% of Knight (1978) and in the cases of Sugar et al (1986) 35.2%. The influence of the endothelial microscope is evident from the statistics that involve eyes operated on after 1975. Hirst et al (1977) found an average of 14% endothelial cell loss in cataract with implant versus 13% in cataract without implant. Dron and Waltman (1978) reported 11.6% after uncomplicated cataract extraction versus 4.1% after cataract operation without lens implantation. In complicated lens implantation, especially with presentation of vitreous the cell loss increased to 65-5% (Kraff et al 1978). It is found that there is a close relationship between cell loss and degree of surgical trauma (John J. Alpar, Paul U. Fechner 1986) Little (1979) described that on 3rd post operative day in a clear cornea without decompres fold, cell loss was 0-10%, in clear cornea with decompres membrane folds cell loss
was 0-10%, in clear cornea with descemet membrane folds cell loss was 10-20% in stria keratitis cell loss was 15-35%, in the area of cornea with firm epithelial edema cell loss occurred 35-60%. In area of cornea with bullous epithelial edema cell loss occur 50-70%, in cloudy cornea cell loss was more than 70% (John J. Alpar, Paul U. Fechner 1986). In FDA study the incidence of corneal endothelial dystrophy (Pseudophakic bullous keratopathy has been reported to be 1.3% in a year follow up (Apple B.J. et al 1984).

Hyphema is fairly common but usually innocuous complication most frequently occurs between the second and seventh post operative days. It is caused by bleeding from small vessels crossing the wound. Minor trauma may precipitate hyphema in some cases. In a study group of 146 cases Subhash P. Faden (1987) new hyphema in 3 cases which was well controlled in 4 days. In S. Tony Fernandez, et al's study of 60 ICL implants hyphema occurred in 1 case (ICL used without vision) and 2 cases (ICL used with vision), Daljit Singh et al (1983) reported 6.5%. It was 12% in the study group with ICL A.B. Azar 912 anterior chamber IOLs (Arch ophth 1987).
Rise in intraocular pressure (above 20.6 mm Hg) has been reported in 7% cases of n, 7th day after operation. 1.6% on 15th day and 0.54% on 45th day in a study of 185 cases, (R.K. Mishra et al 1985). J. Watts (1979-1983) reported in 2 cases out of 44 cases of anterior chamber IOL implant. Daljit Singh et al (1984) reported glaucoma in 6.33% in a experimental study group in rabbits. In a study of 300 patients, C.F. Billere et al (1984) found 7.92% incidence (Rigid anterior chamber IOL implants) and 1.6% (Flexible loop anterior chamber IOL implant), 2% incidence was revealed by V.K. Bidwes (1988). S. Bharti et al (1984-1986) also encountered acute glaucoma in a study group 158 cases. Subhash P. Redam (1987) noticed 4 cases of 146 patients study. R.K. Mishra et al (1989) found in 3.1% cases. In a study of 53 patients implanted with IOL A.B. Azer 912 AL IOL the incidence of glaucoma was 13%. In surgical style Leiske AC IOL, implantation secondary glaucoma has been described as late complication on long term study (Arch Ophth. 1987).

R.K. Mishra et al (1985) reported corneal dystrophy 1% in a series of 185 cases. C.F. Billere
et al (1986) reported corneal edema in 7.9% (Rigid type anterior chamber IOL implanted cases) and 16-72% (Flexible anterior chamber IOL implants), corneal decompensation 2.7% (Rigid anterior chamber IOL) 11.4% (Flexible anterior chamber IOL) in a series of 500 patients. Daljit Singh (1980) reported endothelial corneal degeneration in 2 cases in a series of 7 cases of IOL implants. In the study group of M.C. Nabata persistent corneal edema occurred in 3 eyes out of 20 eyes.

Jonathan M. Frants (1989) reported endothelial cell loss 20.3% in 3-6 months period, in study of IOL A.O. Azar 912 anterior chamber intraocular lens the incidence of corneal edema was 12%. In surgicel style lamia A.C. IOL study Pseudophakicbullous keratopathy has been described as a late complication on long term study (Arch ophth 1987). In a study of 44 patients J. Watts (1979-1983) did not come across any such case of corneal decompensation.

Cystoid macular edema (Irvine-Gass syndrome) is more frequent following intracapsular extraction (particularly when associated with vitreous loss) than uncomplicated extracapsular extraction. Prostagland in
have been implicated as direct mediator of the noxious stimulus.

In J. Watts (1979-1983) study of 44 anterior chamber IOL implanted cases CME occurred in 1 case. In a study of 53 eyes implanted with semiflexible close loop IOL (IOL AB Azar 91X AC IOL) the incidence was 13%, in Burgidev style lenske AC IOL. 3.2% (Arch Ophth 1987). R.K. Mishra et al (1985) reported 15.6% CME appeared on 7th day in 1.6% cases, on 15th day in 2.2% cases and on 30th day in 10% cases. CME disappeared in 2 months in 14%, in 3 months in 7.3% cases and in 1.6% cases it remained unresolved in 6 months. In series of 158 cases CME was experienced in 6 cases (Subhash P. Kadam 1987). The incidence of macular oedema has been documented highest in anterior chamber intraocular lens implantation, 665 out of 27919 (Recent advances in Ophthalmoology by Davidson 1986), Daljit Singh 1982 delineated incidence of clinical CME in 2-3% cases and 40-50% cases angiographically. The incidence remain 10% in a study group of R.K. Mishra et al (1989). S. Bharti et al also mentioned occurrence of CME while studying 158 cases of IOL implants in the anterior chamber, M.C. Mahote (1983)
reported in one eye out of 20 eyes N.S. Raju (1983), in a study group of 12 patients and S. Tony Fernandez et al (1986) in study group of 60 cases did not encounter any case with CME.

The frequency of Retinal detachment is about the same for pseudophakic and aphakic eyes provided no vitreous loss occurred during surgery and if it did, a proper vitreous toilet was performed (Alpar, Fechner 1986). S. Tony Fernandez et al 1986) reported retinal detachment in one case out of ICL implanted cases. In various studies by different authors (J. Watts, Jonathan M. Franta, Daljit Singh, P.K. Mishra, C.P. Billeo, Subhash P. Kadam, S. Bharti) no such incidence of retinal detachment was encountered.

In the study group of 60 ICL implants 20 patient complained of disturbance in looking at light, 2 cases complained of moving shiny objects in front of the eye 3 cases had tenderness. ICL with intracapsular extraction gave good results as compared to extracapsular extraction. It was concluded that for Indian condition intracapsular extraction with anterior chamber flexible lenses are ideal (S. Tony Fernandez et al 1986).
In the study group (60 IOIs) of S. Tony Fernandez (1985) the visual results achieved after correction or without correction were 6/12 to 6/12 by 70% cases 6/18 to 6/36 by 26.2%. Causes of low vision were macular changes in 8 eyes, corneal opacity in 4 eyes. No reason was found in 4 cases. 4 eyes did not require correction for distant vision, 14 eyes required sphere but no cylinder, 18 eyes required cylinder up to +4D and 2 eyes required above 4D cylinder.

R.K. Mishra et al (1987) revealed that 6/6-6/9 vision was attained by 35% cases, 6/12-6/18 attained by 46%, 6/24 achieved by 14.6% and 6/60 by 6.5%. Vision was very good in 40% cases, good in 70%, satisfactory in 9% and poor in 12%. As far as patients satisfaction was concerned 49% (very good) 30% good, 14.5% satisfactory and 6.5% poor.

In the study groups of C.P. Billlore (1986) the visual results were 6/12-6/6 in 70% (group I) and 76% (group II), 6/36-6/18 could achieved by 15% (group I) and 17% (group II), CF - 6/60 achieved by 7% each group.
Vilas Bidaye (1988) reported that 6/6-6/12 was achieved by 64%, 6/12-6/24 by 20%, 6/24-6/60 by 7% and 6/60 by 9%.

The visual results in the study group (150 eyes) of S. Sharti et al (1985) were 6/6 by 36-70%, 6/9 by 47.46%, 6/12-6/18 by 12%, 6/24-6/36 by 3% and 4/60 saw by 0.63% cases.

T.M. Paranjpe (1983) concluded the results of visual acuity in 25 IOL cases were 6/6 by 4 eyes and 6/12 saw by 21 eyes.

In the study group H.C. Mahata (1983) the results of 20 IOL cases were 6/12 or better saw by 9 (60%) 6/18 saw by 4 (26.7%) and 6/60 by 2 eyes (12.5%).

J. Watts's (1984) report of visual acuity among the 101 cases, were 6/12 or better achieved in 92% and less than 6/12 was achieved in 8% cases.