DISCUSSION

Cataract extraction is the most common surgical procedure in ophthalmology now a days. It leads to aphakia which can be corrected by suitable spectacle lenses or various contact lenses or by intracocular lens implantation. Out of these methods of aphakia correction by the posterior chamber IOL implantation is most suitable method now a days.

These intracocular lens implantations are associated with some complications in addition to the complications of simple cataract extraction.

Now with the major improvement in micro-surgical technique, lens materials and lens design led to the increasing use of posterior chamber lenses since 1975 till date.

The posterior chamber lens has got the added advantages:

1. Closer to point of rotation, more stability, less flutter, glitter.

2. Closer to nodal point; better optical results, less anisokoria.

3. Relative easy insertion and one size fits almost all and less chances of dislocation.
4. Primary and secondary implantation possible.
5. Less damaging to tissue once in place.

In the present clinical study of posterior chamber lens implantation peroperative and postoperative complications were noted in 21 cases within a period of 6-9 months.

Complication during Surgery:

Hyphaema was seen in two cases (9.5%) which got resolved within one week in present study. Harold Ridley (1952), Subhash P. Kadam (1987), Tony Fernandez (1989) reported the incidence of hyphaema 3.4%, 10.2% & 1.6% respectively. This is similar to the study of Subhash P. Kadam (1987), but higher to the study of M. Ridley (1952) and Tony Fernandez (1989). S. Bharti et al (1984-86) reported that hyphaema is usually not significant and stops spontaneously.

Remnants of lens matter noted in 2 cases (9.5%) which is lower as compared to O.P. Billore (1986), who reported in 33 cases (45.29%) in his study.

Small rupture of posterior capsule was noted in 1 case (4.7%) in which posterior chamber lens could be implanted. This is slightly higher than results of Tony Fernandez (1989), who reported 12 cases (2.4%) of small posterior capsule rupture in which posterior chamber IOL could be implanted.
Early postoperative complications:

In present study striate keratitis was observed in 23.8% cases, while Sudhakar J, Ravindran RD and Ratnchiar (1989) reported in 7.3% cases; Subhash P Kadam, Beroje (1987) reported striate keratitis in 12.6% cases; Tony Hernandez (1989) observed 15.2% incidence of striate keratitis in his 500 patients.

In the present study slightly higher incidence of striate keratitis was observed which could be due to unavailability of very refined micro-surgical instruments, so that there was excessive handling of cornea during lens implantation.

Corneal oedema was present in 1 case (4.7%) in my present study. Sudhakar J, Ravindran RD and Ratnchiar (1989) reported incidence of corneal oedema in only 1.7% cases. The most probable cause could be the trauma to the cornea during irrigation & aspiration of lens cortex.

It was mild and subsided within a week.

Iritis in early postoperative period was observed in 5 cases (23.8%). In most cases it resolved within 2-3 weeks with the treatment except in 1 case in which it persisted upto 3 months.
Kratz (1977) observed 3.3% incidence of iritis in his 2500 cases. Subhash P. Kadam (1987) reported 7.5% incidence of iritis in his 79 cases. Sudhakar J. Ravindran RD and Natchiar (1989) reported 4.8% incidence of iritis while Tony Fernandez (1989) reported 3.4% incidence of iritis in his study of posterior chamber lens implantation.

The incidence of iritis is higher in my study than the other studies. The cause of this high incidence could be inadequate treatment of iritis during postoperative period because patient did not come for regular followup as well as due to excessive handling of iris during irrigation aspiration procedure.

Remnants of lens matter was found in 1 case (4.7%). This case was of perforating injury in which lens cortex was thick and did not absorbed fully during postoperative period.

O.P. Billlore, M.A. Khurram and A.P. Shroff (1986) were reported 45.29% incidence in their study, so my results are lower than this study.

Raised intraocular pressure was found in one case (4.7%). It was the case of perforating injury and was due to iritis as well as due to retention of some cortical lens matter blocking the trabecular meshwork. F.D.A. study 1979 and Dr. O.P. Billlore reported similar results
of raised intraocular tension i.e. 4% and 4.2% respectively. It was subsided with medical treatment after 3 month.

Pigmentary deposits on IOL were found in 2 cases (9.5%). It was lower than the results of O.P. Billore, M.A. Khurram and A.P. Shroff (1986) who reported 43.59% cases. Moreover, it got absorbed after 6-8 week period without leaving ill effect on vision.

**Late postoperative complications:**

Persistent iritis was present in one case (4.7% in present study. It was associated with raised intraocular pressure. It subsided after medical treatment in a period of 3 months.

Similar results were noted by Sudhakar J, Ravindran RD, and Natchiar who reported 4.2% cases of persistent iritis.

Thickening of posterior lens capsule was observed in 1 case (4.7%). Sudhakar J, Ravindran RD and Natchiar (1989) reported 11.5% incidence of posterior capsule thickening. however, Tony Fernandez and Subhash P. Kadam (1987) reported 11.6% and 15.1% incidence of posterior capsule thickening respectively in their posterior chamber intraocular lens implant cases. This was the case of perforating injury. This can be due to the fibrous metaplasia of lens fibres which were difficult to remove by irrigation and aspiration but it was not in visual axis hence not disturbing the vision. However,
it is too early to comment on posterior capsular thickening as followup of 6-9 month was short time and patient did not come for proper followup.

Excessive pigmentary deposits over IOL were found in 2 cases (9.5%) which persisted for 6-8 weeks. The incidence was lower than the results of O.F. Billore, M.A. Khurram and A.P. Shroff (1985) who reported higher incidence of pigmentary deposits in their study.

**Visual achievements:**

In present study the postoperative visual acuity achieved is 6/6 in 2 cases (9.5%), 6/9 in 15 cases (71.43%), 6/12 in 4 cases (19.05%) and after spectacle correction i.e. 80.95% cases achieved vision 6/9 or better.

Almost similar results of visual acuity was reported by Tony Fernandez, Sebastian Pious and Noel Monia (1989) in their 500 cases of posterior chamber lens implantation.

- 6/6 or better in 30.4%.
- 6/9 to 6/18 in 52.2%.
- 6/24 to 6/60 in 12.2%.
- 6/60 in 4.2% cases.

Keiki R Mehta (1989) reported similar results of visual acuity in 50 cases i.e. 6/6 - 6/9 in 78%, 6/12-6/18 in 8%, 6/24-6/36 in 24%.

However, Sudhakar J, Ravindran RD and Matchi Har G, reported slightly less visual acuity results in their
posterior chamber lens implantation i.e. 6/6-6/9 in 37.1% cases, 6/12-6/18 in 31.5% cases, 6/24-6/60 in 6.2% cases, 6/60 in 2.2% cases.

Hence final visual acuity achievement in my cases was very near to the results reported by other workers in their studies.