

# **CATARACT SURGERY OUTCOMES**

Cataract Surgery Complications- Intra-Operative

Cataract Surgery Complications - Post-Operative

Analysis On Cataract Surgery Visual Outcome

Post-operative Visual Acuity

Post-Operative Refracted VA Improved By One Or More Line Of Snellen Chart

Factors Contributing To Post-Operative Visual Acuity Worse Than 6/12

### 3. CATARACT SURGERY OUTCOMES

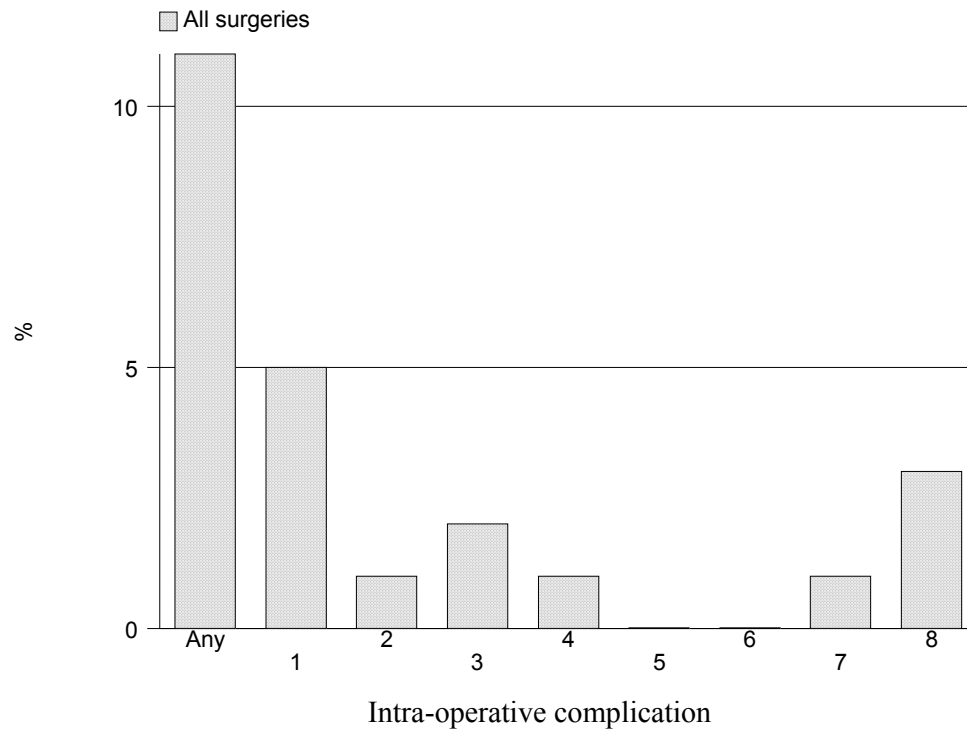
#### 3.1: Cataract Surgery Complications

**Table 3.1.1: Distribution of intra-operative complications by type of cataract surgery**

Type of intra-operative complications	Types of cataract surgery													
	All surgeries		Lens Aspiration		ECCE		PE		PE to ECCE		ICCE		Secondary IOL Implant	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
N	3016	100	95	100	1682	100	1131	100	77	100	19	100	12	100
<b>Any intra-op complication</b>	343	11	16	17	176	10	102	9	41	53	8	42	0	0
1. Posterior capsule rupture with vitreous loss	140	5	4	4	70	4	42	4	24	31	0	0	0	0
2. Posterior capsule rupture without vitreous loss	34	1	2	2	18	1	6	1	4	5	4	21	0	0
3. Zonular dialysis with vitreous loss	47	2	5	5	18	1	23	2	1	1	0	0	0	0
4. Zonular dialysis without vitreous loss	29	1	3	3	13	1	11	1	2	3	0	0	0	0
5. Loss of nucleus material into vitreous	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7. Significant trauma to cornea or iris	22	1	1	1	13	1	7	1	1	1	0	0	0	0
8. Other	79	3	2	2	47	3	16	1	10	13	4	21	0	0

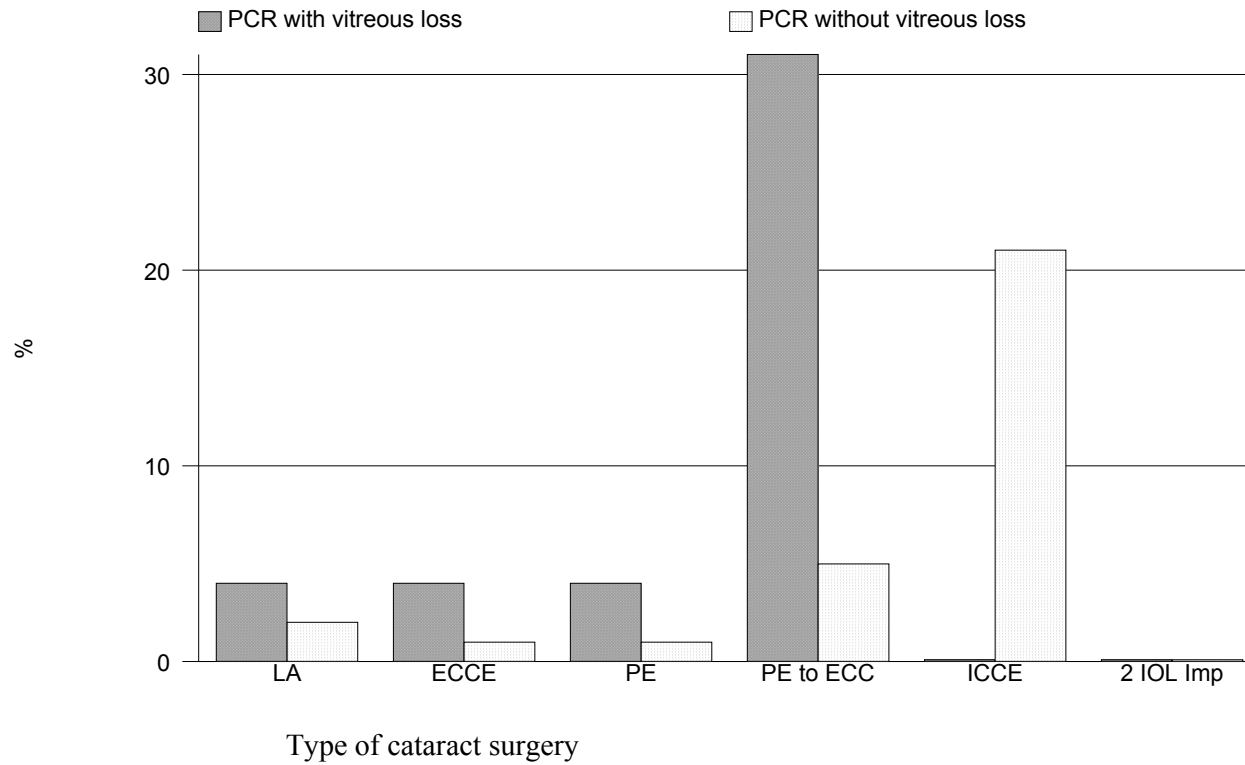
\* Number in each column might add up to be more than that recorded at row with 'Any intra-op complication' as one patient might have more than one type of intra-operative complications.

**Figure 3.1.1.1: Distribution of intra-operative complication**



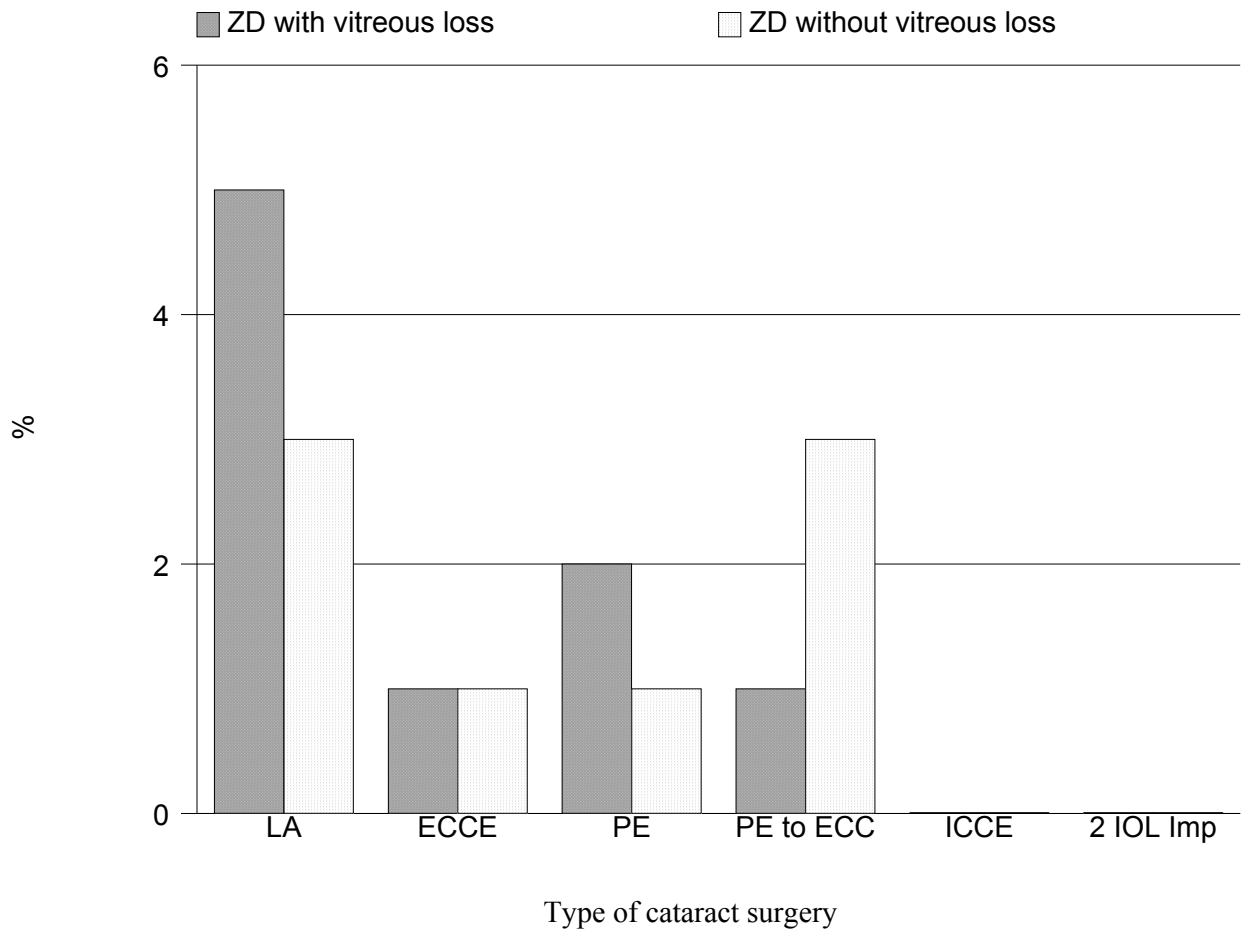
**Intra-op complication: Index refers to table 3.1.1**

**Figure 3.1.1.2: Distribution of intra-operative complication by posterior capsule rupture with vitreous loss and posterior capsule rupture without vitreous loss**



\* LA= Lens aspiration  
 \* 2 IOL Imp= Secondary IOL Implant

**Figure 3.1.1.3: Distribution of intra-operative complication by zonular dialysis with vitreous loss and zonular dialysis without vitreous loss**



\* LA= Lens aspiration

\* 2 IOL Imp= Secondary IOL Implant

**Table 3.1.2: Distribution of intra-operative complications by combined surgery**

Type of intra-operative complications	Combined surgery													
	All surgeries		Any Combined surgery		Pterygium surgery		Filtering surgery		Vitreoretinal surgery		Penetrating Keratoplasty		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
N	3016	100	111	100	24	100	45	100	5	100	0		39	100
Any intra-op complication	343	11	18	16	3	13	6	13	2	40	0		8	21
1. Posterior capsule rupture with vitreous loss	140	5	6	5	0	0	2	4	0	0	0		4	10
2. Posterior capsule rupture without vitreous loss	34	1	3	3	1	4	0	0	0	0	0		2	5
3. Zonular dialysis with vitreous loss	47	2	1	1	0	0	1	2	0	0	0		0	0
4. Zonular dialysis without vitreous loss	29	1	3	3	0	0	2	4	1	20	0		0	0
5. Loss of nucleus material into vitreous	0	0	0	0	0	0	0	0	0	0	0		0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0	0	0	0	0	0		0	0

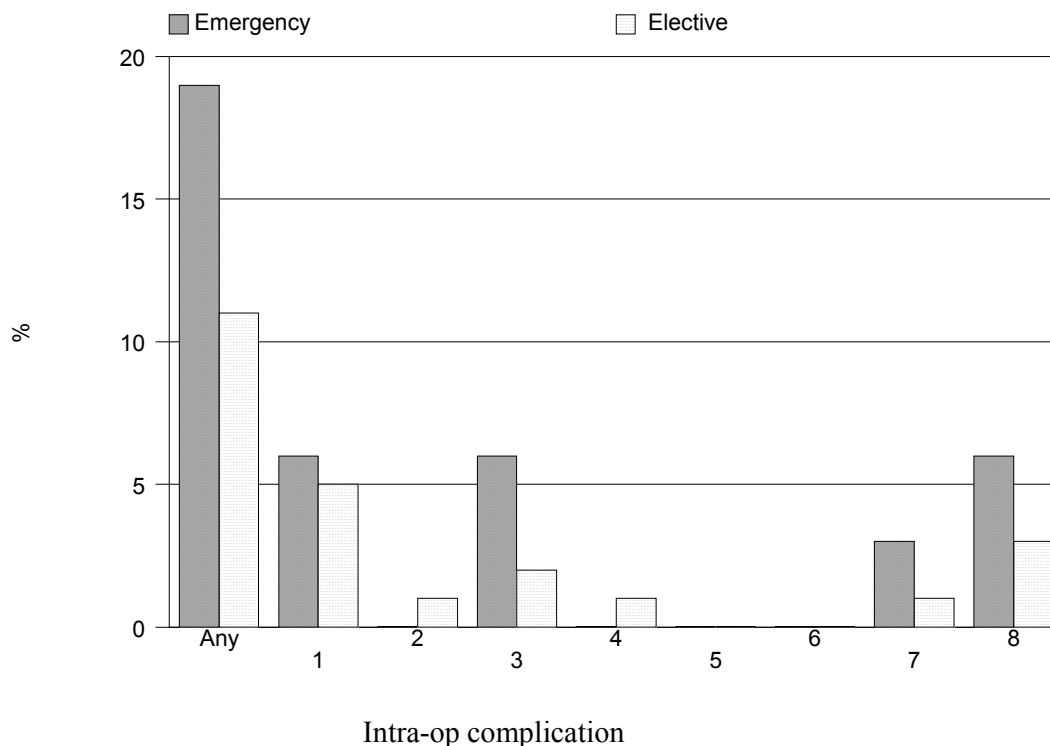
Type of intra-operative complications	Combined surgery													
	All surgeries		Any Combined surgery		Pterygium surgery		Filtering surgery		Vitreoretinal surgery		Penetrating Keratoplasty		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7. Significant trauma to cornea or iris	22	1	1	1	1	4	0	0	0	0	0	0	0	0
8. Other	79	3	5	5	1	4	2	4	1	20	0		2	5

Number in each column might add up to be more than that recorded at row with 'Any intra-operative complication' as one patient might have more than one type of intra-operative complications

**Table 3.1.3: Distribution of intra-operative complications by nature of cataract surgery**

Type of intra-operative complications	Nature of cataract surgery					
	All patients		Emergency		Elective	
	No.	%	No.	%	No.	%
N	3016	100	36	100	2980	100
Any intra-op complication	343	11	7	19	336	11
1. Posterior capsule rupture with vitreous loss	140	5	2	6	138	5
2. Posterior capsule rupture without vitreous loss	34	1	0	0	34	1
3. Zonular dialysis with vitreous loss	47	2	2	6	45	2
4. Zonular dialysis without vitreous loss	29	1	0	0	29	1
5. Loss of nucleus material into vitreous	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0
7. Significant trauma to cornea or iris	22	1	1	3	21	1
8. Other	79	3	2	6	77	3

**Figure 3.1.3: Distribution of intra-operative complications by nature of cataract surgery**



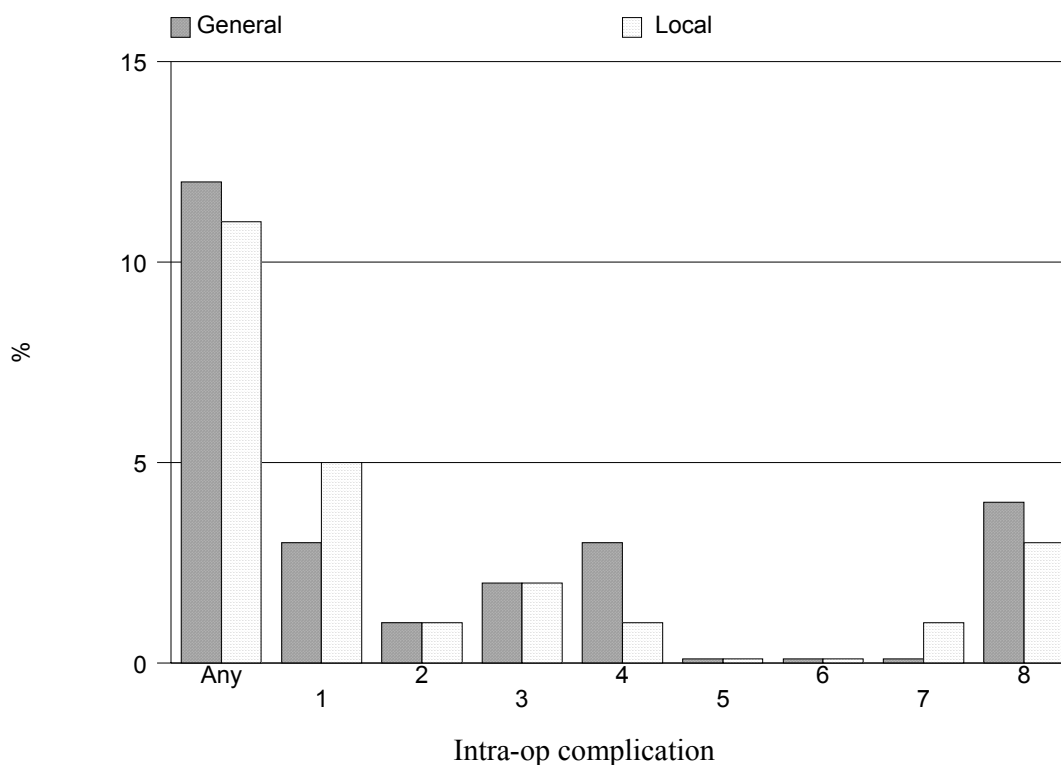
**Intra-op complication: Index refers to table 3.1.03**



**Table 3.1.4: Distribution of intra-operative complications by type of anaesthesia**

Type of intra-operative complications	Types of anaesthesia					
	All patients		General		Local	
	No.	%	No.	%	No.	%
N	3016	100	187	100	2829	100
Any intra-op complication	343	11	22	12	321	11
1. Posterior capsule rupture with vitreous loss	140	5	6	3	134	5
2. Posterior capsule rupture without vitreous loss	34	1	1	1	33	1
3. Zonular dialysis with vitreous loss	47	2	3	2	44	2
4. Zonular dialysis without vitreous loss	29	1	5	3	24	1
5. Loss of nucleus material into vitreous	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0
7. Significant trauma to cornea or iris	22	1	0	0	22	1
8. Other	79	3	8	4	71	3

**Figure 3.1.04: Distribution of intra-operative complications by type of anaesthesia**



**Intra-op complication: Index refers to table 3.1.4**

**Table 3.1.5: Distribution of intra-operative complications by type of local anaesthesia**

Type of intra-op complications	Types of local anaesthesia															
	Local anaesthesia		Retrobular		Peribulbar		Subtenon		Sub-conjunctival		Facial block		Topical		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
N	2829	100	851	100	545	100	1351	100	7	100	363	100	200	100	1	100
Any intra-op complication	321	11	73	9	52	10	198	15	0	0	28	8	16	8	0	0
1. Posterior capsule rupture with vitreous loss	134	5	39	5	18	3	72	5	0	0	19	5	11	6	0	0
2. Posterior capsule rupture without vitreous loss	33	1	7	1	7	1	19	1	0	0	1	0	1	1	0	0
3. Zonular dialysis with vitreous loss	44	2	8	1	4	1	34	3	0	0	3	1	1	1	0	0
4. Zonular dialysis without vitreous loss	24	1	7	1	4	1	13	1	0	0	2	1	2	1	0	0
5. Loss of nucleus material into vitreous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

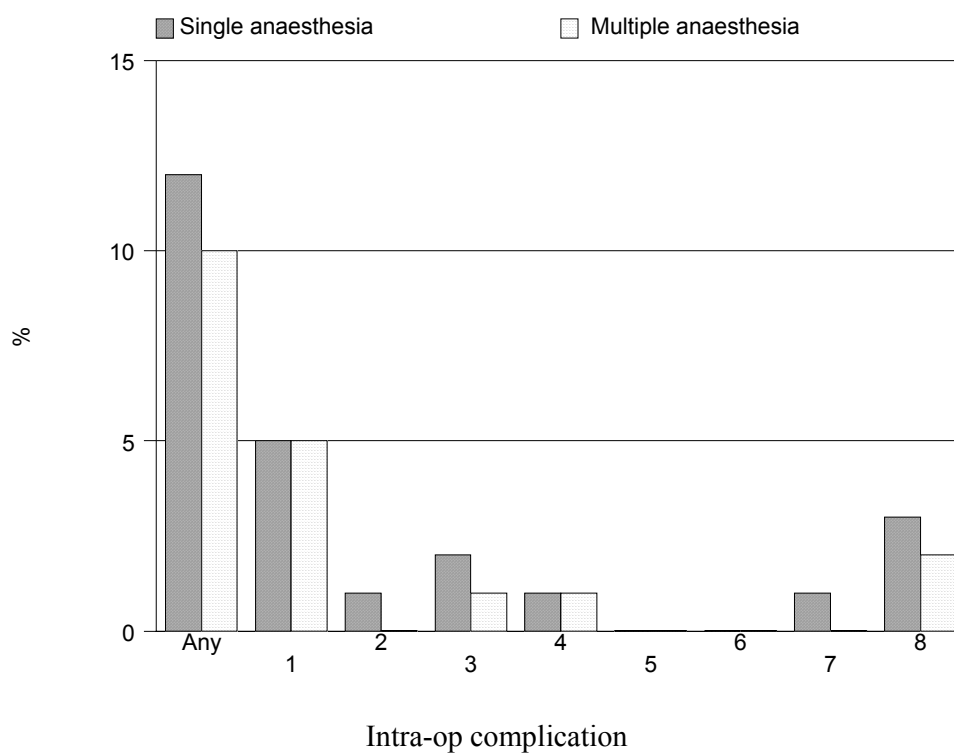
Type of intra-op complications	Types of local anaesthesia															
	Local anaesthesia		Retrobular		Peribulbar		Subtenon		Sub-conjunctival		Facial block		Topical		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6.Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.Significant trauma to cornea or iris	22	1	4	0	5	1	13	1	0	0	0	0	0	0	0	0
8.Other	71	3	12	1	16	3	48	4	0	0	3	1	1	1	0	0

\* Number in each column might add up to be more than that recorded at row with ‘ Any intra-op complication’ as one patient might have more than one type of intra-operative complications

**Table 3.1.6: Distribution of intra-operative complications by single or multiple local anaesthesia**

Type of intra-operative complications	Local anaesthesia			
	Single		Multiple	
	No.	%	No.	%
N	2371	100	458	100
Any intra-op complication	277	12	44	10
1. Posterior capsule rupture with vitreous loss	110	5	24	5
2. Posterior capsule rupture without vitreous loss	31	1	2	0
3. Zonular dialysis with vitreous loss	39	2	5	1
4. Zonular dialysis without vitreous loss	20	1	4	1
5. Loss of nucleus material into vitreous	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0
7. Significant trauma to cornea or iris	22	1	0	0
8. Other	62	3	9	2

**Figure 3.1.6: Distribution of intra-operative complications by single or multiple local anaesthesia**



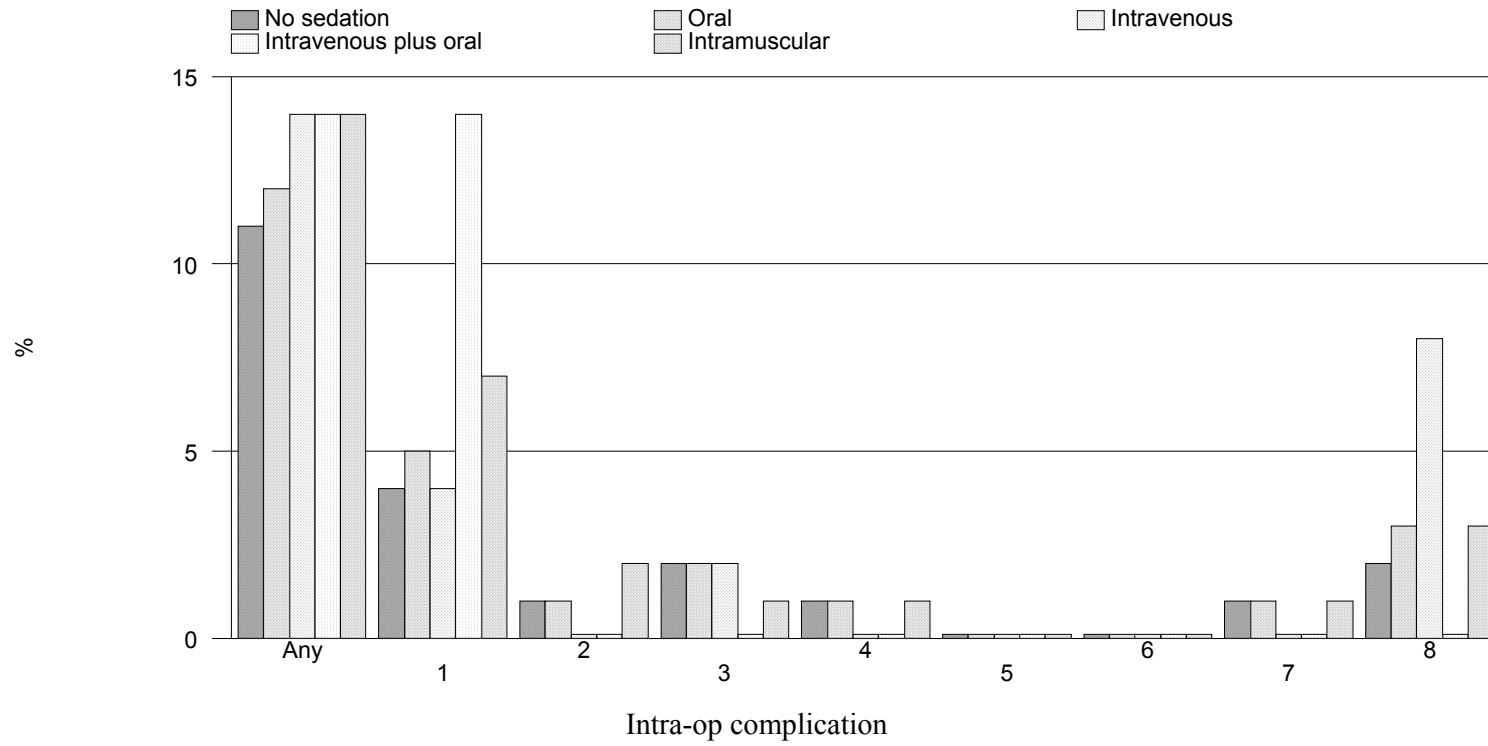
**Intra-op complication: Index refers to table 3.1.06**

**Table 3.1.7: Distribution of intra-operative complications by type of sedation**

Type of intra-operative complications	Types of sedation									
	No sedation		Oral alone		Intravenous alone		Intravenous plus oral		Intramuscular	
	No.	%	No.	%	No.	%	No.	%	No.	%
N	1567	100	1058	100	50			100	121	100
Any intra-op complication	167	11	128	12	7	14	6	14	17	14
1. Posterior capsule rupture with vitreous loss	65	4	55	5	2	4	6	14	9	7
2. Posterior capsule rupture without vitreous loss	20	1	11	1	0	0	0	0	2	2
3. Zonular dialysis with vitreous loss	26	2	16	2	1	2	0	0	1	1
4. Zonular dialysis without vitreous loss	14	1	9	1	0	0	0	0	1	1
5. Loss of nucleus material into vitreous	0	0	0	0	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0	0	0	0	0
7. Significant trauma to cornea or iris	15	1	7	1	0	0	0	0	1	1
8. Other	32	2	31	3	4	8	0	0	4	3

\* Number in each column might add up to be more than that recorded at row with 'Any intra-op complication' as one patient might have more than one type of intra-operative complications

**Figure 3.1.7: Distribution of intra-operative complications by type of sedation**

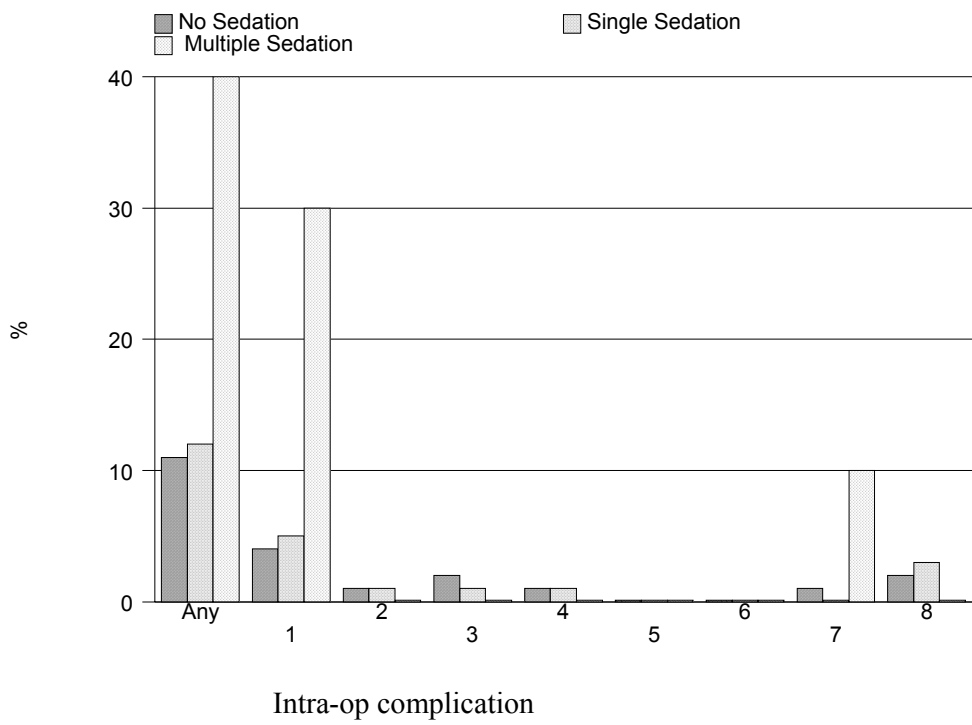


**Intra-op complication: Index refers to table 3.1.7**

**Table 3.1.8: Distribution of intra-operative complications by sedation**

Type of intra-operative complications	Sedation					
	No sedation		Single		Multiple	
	No.	%	No.	%	No.	%
N	1567	100	1252	100	10	100
Any intra-op complication	167	11	150	12	4	40
1. Posterior capsule rupture with vitreous loss	65	4	66	5	3	30
2. Posterior capsule rupture without vitreous loss	20	1	13	1	0	0
3. Zonular dialysis with vitreous loss	26	2	18	1	0	0
4. Zonular dialysis without vitreous loss	14	1	10	1	0	0
5. Loss of nucleus material into vitreous	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0
7. Significant trauma to cornea or iris	15	1	6	0	1	10
8. Other	32	2	39	3	0	0

**Figure 3.1.8: Distribution of intra-operative complications by sedation**



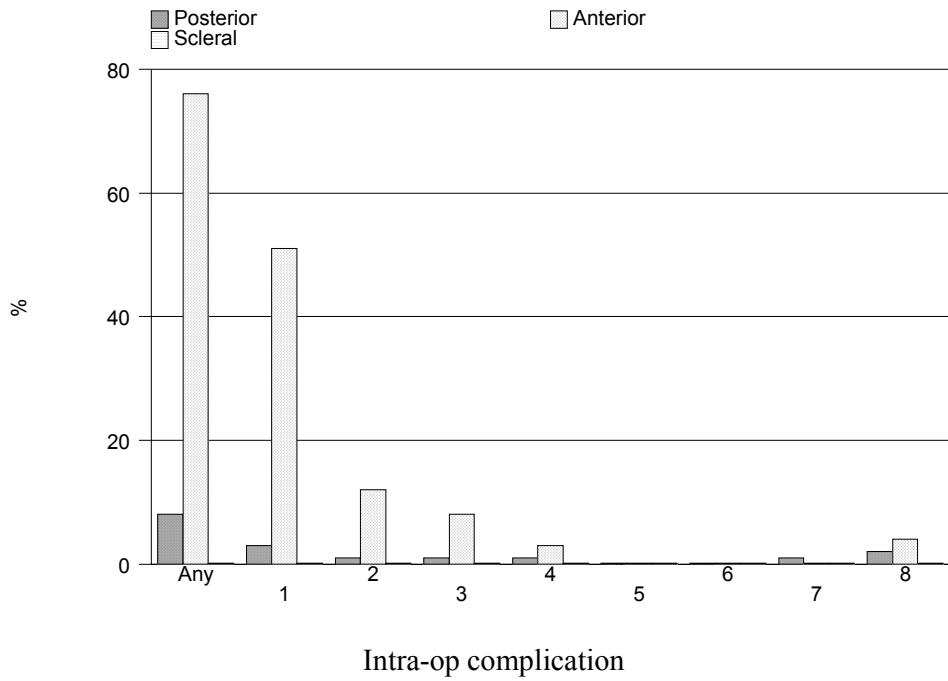
**Intra-op complication: Index refers to table 3.1.8**



**Table 3.1.9: Distribution of intra-operative complications by cataract surgery with IOL**

Type of intra-operative complications	Cataract surgery with IOL							
	All patients with IOL		Posterior chamber IOL		Anterior chamber IOL		Scleral fixated IOL	
	No.	%	No.	%	No.	%	No.	%
N	2932	100	2831	100	98	100	3	100
Any intra-op complication	312	11	238	8	74	76	0	0
1. Posterior capsule rupture with vitreous loss	128	4	78	3	50	51	0	0
2. Posterior capsule rupture without vitreous loss	27	1	15	1	12	12	0	0
3. Zonular dialysis with vitreous loss	45	2	37	1	8	8	0	0
4. Zonular dialysis without vitreous loss	25	1	22	1	3	3	0	0
5. Loss of nucleus material into vitreous	0	0	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0	0	0
7. Significant trauma to cornea or iris	21	1	21	1	0	0	0	0
8. Other	72	2	68	2	4	4	0	0

**Figure 3.1.9: Distribution of intra-operative complications by cataract surgery with IOL**

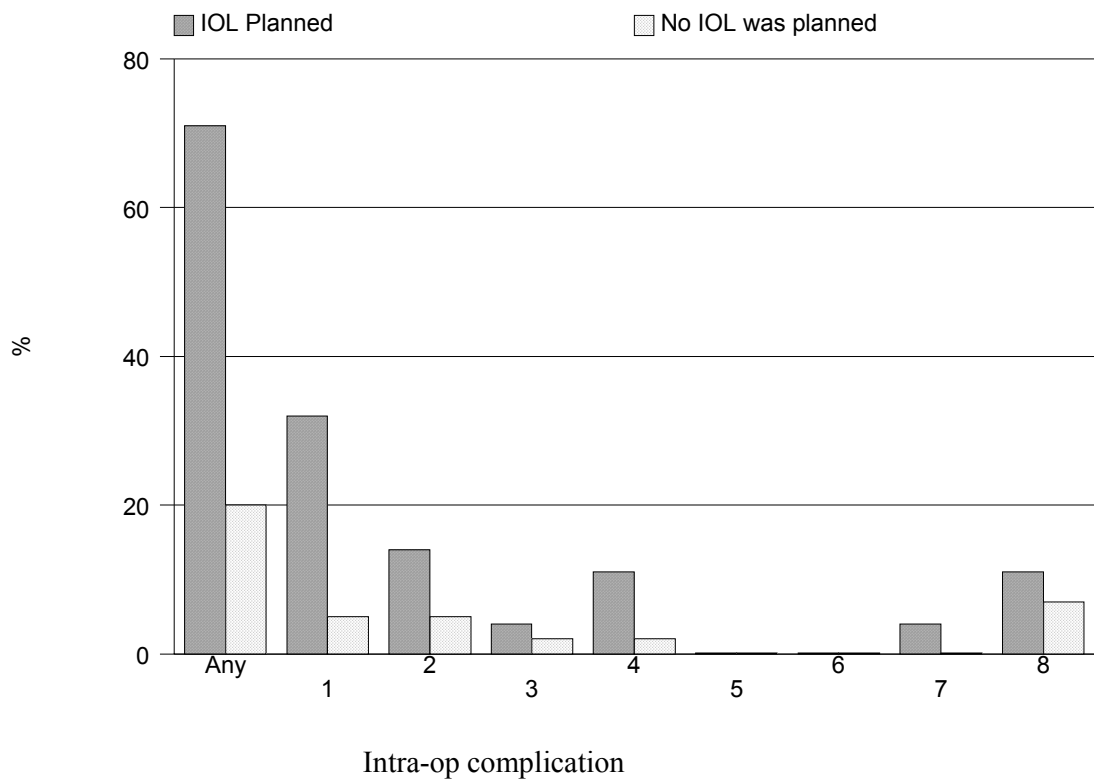


**Intra-op complication: Index refers to table 3.1.09**

**Table 3.1.10: Distribution of intra-operative complications by cataract surgery without IOL**

Type of intra-operative complications	Cataract surgery without IOL					
	All patients without IOL		IOL planned, but not implanted		No IOL was planned	
	No.	%	No.	%	No.	%
N	84	100	28	100	56	100
Any intra-op complication	31	37	20	71	11	20
1. Posterior capsule rupture with vitreous loss	12	14	9	32	3	5
2. Posterior capsule rupture without vitreous loss	7	8	4	14	3	5
3. Zonular dialysis with vitreous loss	2	2	1	4	1	2
4. Zonular dialysis without vitreous loss	4	5	3	11	1	2
5. Loss of nucleus material into vitreous	0	0	0	0	0	0
6. Choroidal/suprachoroidal haemorrhage	0	0	0	0	0	0
7. Significant trauma to cornea or iris	1	1	1	4	0	0
8. Other	7	8	3	11	4	7

**Figure 3.1.10: Distribution of intra-operative complications by cataract surgery without IOL**



Intra-op complication: Index refers to table 3.1.10

### 3.2 Post-Operative Complications

**Table 3.2.1: Distribution of post-operative complications**

<b>Post-operative complications</b>	<b>No.</b>	<b>%</b>
N	3016	100
<b>Patients with any post-op complication</b>	429	14
<b>Patients with specific post-op complication</b>		
1. Central oedema within 4mm of visual axis	118	4
2. Raised IOP of more than 30mmHg	46	2
3. Suture abscess	11	0
4. Severe iritis with fibrin	13	0
5. Iris prolapse/wound dehiscence	8	0
6. Vitreous incarceration into wad	5	0
7. Vitreous in AC touching cornea	2	0
8. IOL decentration/dislocation	8	0
9. Cystoid macular oedema	21	1
10. Endophthalmitis	2	0
11. New retinal break	0	0
12. Retinal detachment	4	0
13. Astigmatism of > 3 dioptres	134	4
14. Posterior capsule opacification	31	1
15. Other	79	3

### 3.3 Analysis On Cataract Surgery Outcome

**Table 3.3.1: Median follow-up period in weeks (Patients with only unaided vision, refraction was not performed)**

Type of surgery	N	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
All surgeries	555	8.1	3.9	12.1
Lens aspiration	24	6.1	3.6	9.2
ECCE	305	8	2.7	12
PE	208	8.1	4.6	12.2
PE to ECCE	13	12.9	7.4	14.1
ICCE	2	16.7	9.9	23.6
Secondary IOL Implant	3	13.7	11.1	15.6

Post –operative visual acuity was not recorded in 86 patients.

**Table 3.3.2: Median follow-up period in weeks (Patients with refracted vision)**

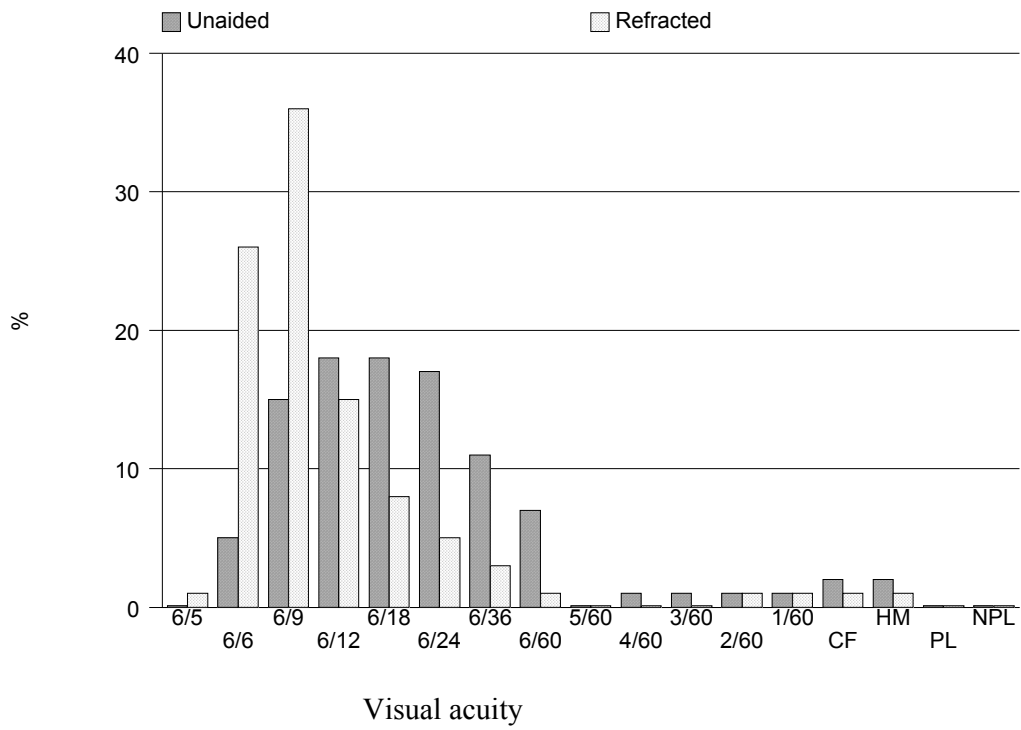
Type of surgery	N	Median	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
All surgeries	2404	10.9	7.7	13.9
Lens aspiration	62	11.6	7.9	15.3
ECCE	1349	11.3	7.9	13.7
PE	905	10.1	7.3	13.7
PE to ECCE	63	12.1	9.1	14.1
ICCE	16	11.3	7.5	15.5
Secondary IOL Implant	9	10.4	7.7	18.3

### 3.4 Post-Operative Visual Acuity

**Table 3.4.1: Distribution of post-operative VA**

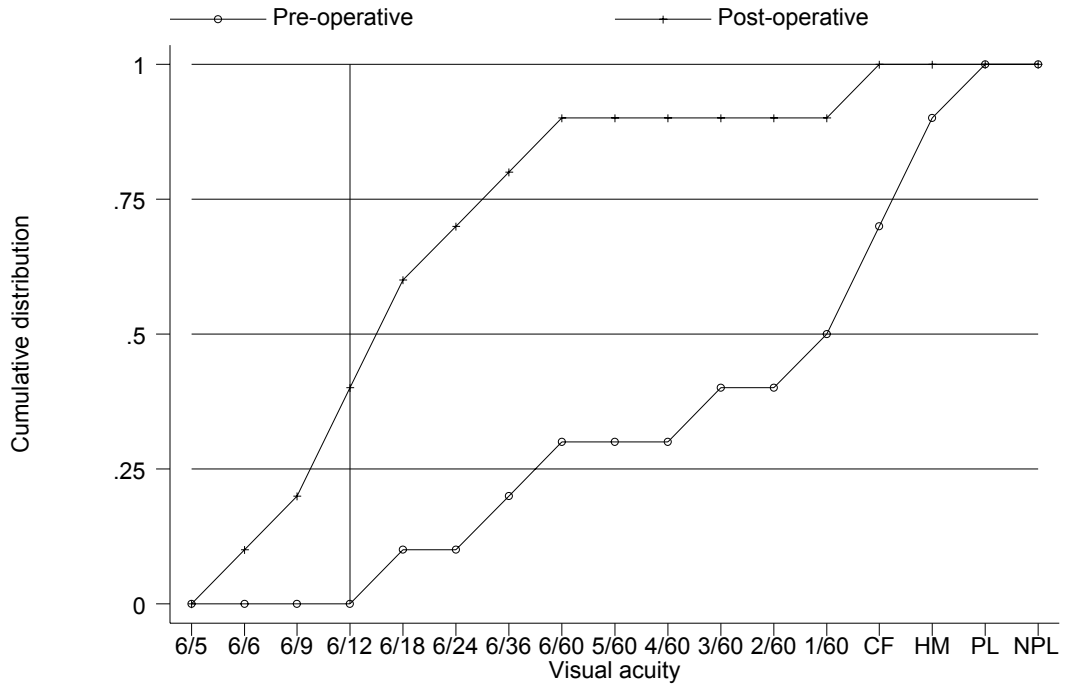
VA post operative	Unaided		Refracted	
	N=2930	100%	N=2404	100%
	No.	%	No.	%
6/5	4	0	24	1
6/6	142	5	633	26
6/9	438	15	876	36
6/12	531	18	368	15
6/18	524	18	185	8
6/24	498	17	116	5
6/36	322	11	70	3
6/60	217	7	30	1
5/60	13	0	4	0
4/60	20	1	5	0
3/60	30	1	11	0
2/60	29	1	19	1
1/60	33	1	17	1
CF	54	2	15	1
HM	52	2	23	1
PL	13	0	6	0
NPL	10	0	2	0

**Figure 3.4.1.1: Distribution of post-operative VA**

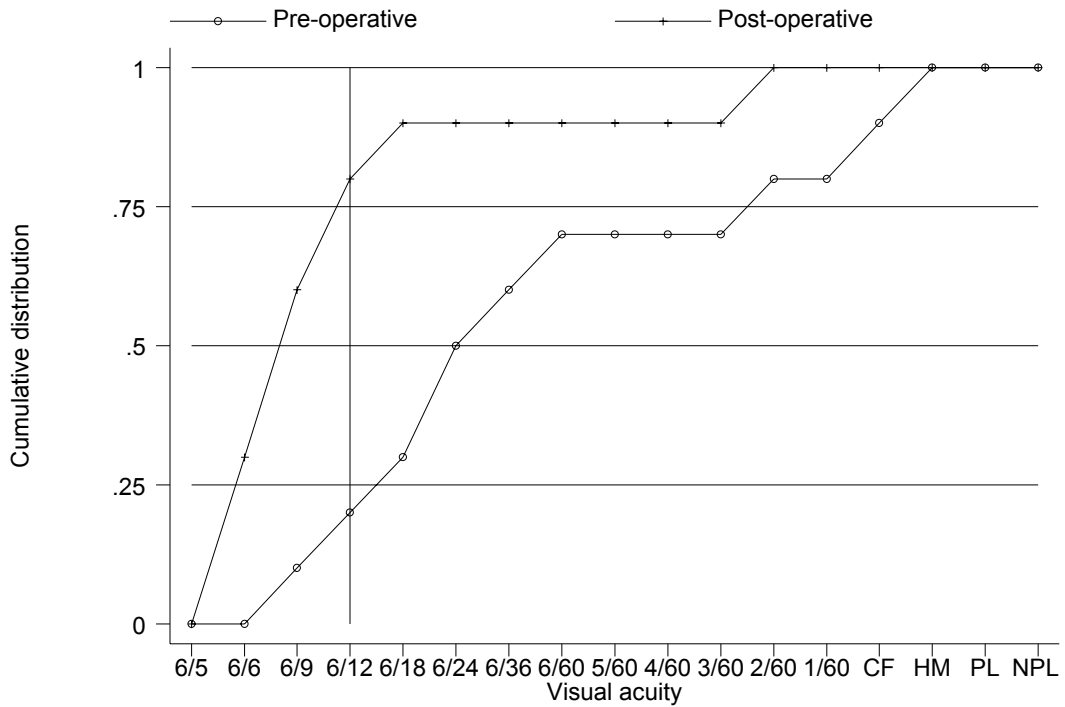




**Figure 3.4.1.2: Cumulative distribution of visual acuity by pre- and post-operative unaided VA**



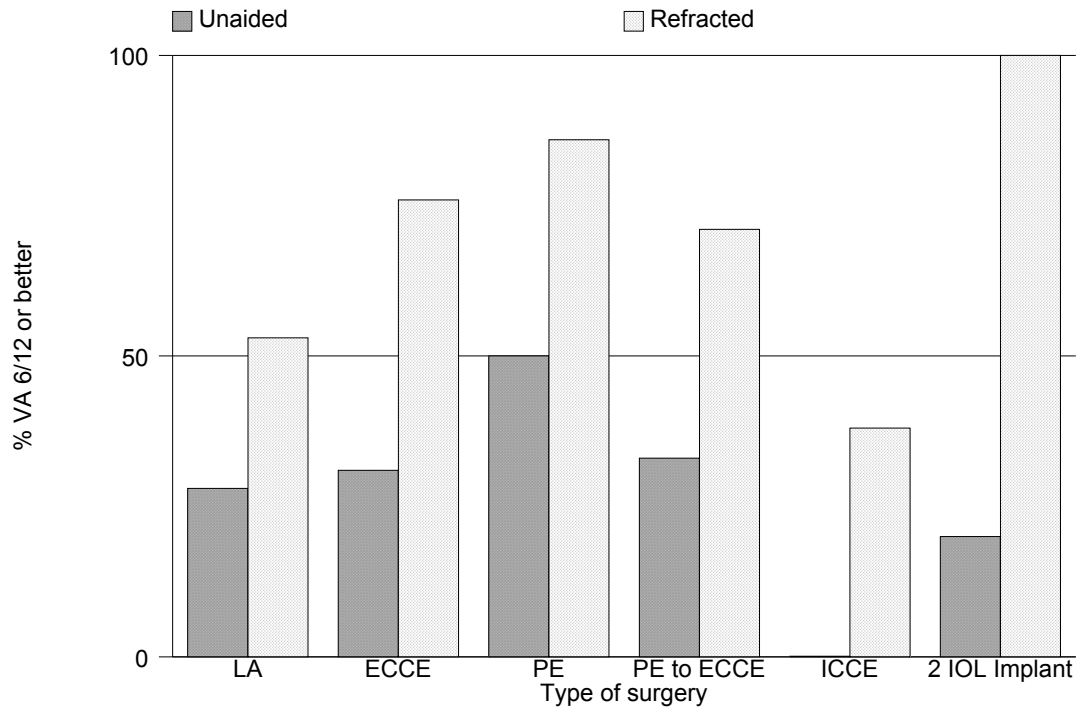
**Figure 3.4.1.3: Cumulative distribution of visual acuity by pre- and post-operative refracted VA**



**Table 3.4.2: Distribution of post-operative refracted VA 6/12 or better at the last follow up, by surgery**

Type of surgery	Unaided			Refracted		
	N	VA 6/12 or better No.	%	N	VA 6/12 or better No.	%
All surgeries	2930	1115	38	2404	1901	79
Lens aspiration	86	24	28	62	33	53
ECCE	1639	512	31	1349	1030	76
PE	1102	552	50	905	778	86
PE to ECCE	75	25	33	63	45	71
ICCE	18	0	0	16	6	38
Secondary IOL Implant	10	2	20	9	9	100

**Figure 3.4.2: Percent of patients with refracted VA 6/12 or better at the last follow up, by surgery**



\* LA= Lens aspiration

\* 2 IOL Implant= Secondary IOL Implant

**Table 3.4.3: Distribution of post-operative refracted VA 6/12 or better in relation to age and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Age group</b>																					
<1 year	1	1	100	1	1	100	0	0		0	0		0	0		0	0		0	0	
1-14 years	22	13	59	20	11	55	1	1	100	0	0		0	0		0	0		1	1	100
15-24 years	21	11	52	14	6	43	5	4	80	0	0		0	0		1	0	0	1	1	100
25-34 years	24	17	71	13	9	69	6	5	83	5	3	60	0	0		0	0		0	0	
35-44 years	74	60	81	6	2	33	38	32	84	29	25	86	1	1	100	0	0		0	0	
45-54 years	253	207	82	6	3	50	134	111	83	98	82	84	11	9	82	3	1	33	1	1	100
55-64 years	654	556	85	0	0		356	293	82	274	248	91	17	10	59	5	3	60	2	2	100
65-74 years	937	735	78	1	1	100	544	401	74	358	308	86	26	20	77	4	1	25	4	4	100

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
75-84 years	376	275	73	0	0		238	169	71	127	100	79	8	5	63	3	1	33	0	0	
>=85 years	42	26	62	1	0	0	27	14	52	14	12	86	0	0		0	0		0	0	

**Table 3.4.4: Distribution of post-operative refracted VA 6/12 or better in relation to gender and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Gender</b>																					
Male	1182	952	81	39	22	56	645	508	79	446	383	86	33	26	79	11	5	45	8	8	100
Female	1222	949	78	23	11	48	704	522	74	459	395	86	30	19	63	5	1	20	1	1	100

**Table 3.4.5: Distribution of post-operative refracted VA 6/12 or better in relation to co-morbidity and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Co-morbidity</b>																					
1. Ocular																					
Yes	651	430	66	23	7	30	369	233	63	231	174	75	11	8	73	13	4	31	4	4	100
No.	1753	1471	84	39	26	67	980	797	81	674	604	90	52	37	71	3	2	67	5	5	100
2. Systemic																					
Yes	1314	1042	79	4	2	50	728	560	77	531	449	85	42	26	62	7	3	43	2	2	100
No.	1090	859	79	58	31	53	621	470	76	374	329	88	21	19	90	9	3	33	7	7	100

**Table 3.4.6: Distribution of post-operative refracted VA 6/12 or better in relation to complication and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Complication</b>																					
1. Intra-op																					
Yes	271	178	66	10	5	50	139	84	60	83	63	76	33	22	67	6	4	67	0	0	
No.	2133	1723	81	52	28	54	1210	946	78	822	715	87	30	23	77	10	2	20	9	9	100
2. Post-op																					
Yes	348	215	62	13	5	38	220	134	61	96	68	71	12	5	42	4	0	0	3	3	100
No.	2056	1686	82	49	28	57	1129	896	79	809	710	88	51	40	78	12	6	50	6	6	100



**Table 3.4.7: Distribution of post-operative refracted VA 6/12 or better in relation to nature of surgery and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Nature of surgeries</b>																					
Emergency	28	15	54	7	2	29	11	6	55	8	6	75	0	0		2	1	50	0	0	
Elective	2376	1886	79	55	31	56	1338	1024	77	897	772	86	63	45	71	14	5	36	9	9	100

**Table 3.4.8: Distribution of post-operative refracted VA 6/12 or better in relation to anaesthesia and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Anaesthesia</b>																					
1. Anaesthesia																					
General	135	82	61	49	27	55	46	32	70	27	17	63	5	1	20	4	1	25	4	4	100
Local	2269	1819	80	13	6	46	1303	998	77	878	761	87	58	44	76	12	5	42	5	5	100
2. Local anaesthesia																					
Retrobulbar	656	525	80	2	0	0	382	292	76	250	216	86	13	11	85	4	1	25	5	5	100
Peribulbar	422	331	78	1	1	100	262	198	76	142	121	85	12	9	75	5	2	40	0	0	
Subtenon	1115	893	80	8	4	50	693	538	78	378	326	86	32	23	72	4	2	50	0	0	
Subconjunctival	6	4	67	0	0		4	2	50	2	2	100	0	0		0	0		0	0	
Facial block	276	220	80	0	0		177	135	76	94	82	87	3	1	33	0	0		2	2	100
Topical	164	142	87	3	1	33	8	3	38	150	135	90	3	3	100	0	0		0	0	
Other	1	1	100	0	0		1	1	100	0	0		0	0		0	0		0	0	

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
3. Sedation																					
Any	1012	819	81	4	1	25	663	530	80	313	265	85	25	19	76	5	2	40	2	2	100
None	1392	1082	78	58	32	55	686	500	73	592	513	87	38	26	68	11	4	36	7	7	100

**Table 3.4.9: Distribution of post-operative refracted VA 6/12 or better in relation to combined surgery and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>Combined surgery</b>																					
Any	86	54	63	6	2	33	40	23	57	31	26	84	2	1	50	7	2	29	0	0	
None	2318	1847	80	56	31	55	1309	1007	77	874	752	86	61	44	72	9	4	44	9	9	100

**Table 3.4.10: Distribution of post-operative refracted VA 6/12 or better in relation to IOL and type of surgery**

Factor	Types of cataract surgery																				
	All surgeries			Lens aspiration			ECCE			PE			PE to ECCE			ICCE			Secondary IOL Implant		
	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%	N	No.	%
N	2404	1901	79	62	33	53	1349	1030	76	905	778	86	63	45	71	16	6	38	9	9	100
<b>IOL</b>																					
1. IOL																					
With IOL	2349	1891	81	52	30	58	1319	1024	78	900	778	86	61	45	74	8	5	63	9	9	100
Without IOL	55	10	18	10	3	30	30	6	20	5	0	0	2	0	0	8	1	13	0	0	
N	2349	1891	81	52	30	58	1319	1024	78	900	778	86	61	45	74	8	5	63	9	9	100
2. IOL-type																					
Foldable	562	487	87	12	8	67	44	31	70	499	442	89	7	6	86	0	0		0	0	
Non-foldable	1787	1404	79	40	22	55	1275	993	78	401	336	84	54	39	72	8	5	63	9	9	100
3. IOL-material																					
PMMA	1827	1434	78	40	22	55	1290	1001	78	426	358	84	55	40	73	8	5	63	8	8	100
Silicone	287	252	88	4	3	75	16	12	75	264	234	89	2	2	100	0	0		1	1	100
Acrylic	234	204	87	8	5	63	13	11	85	209	185	89	4	3	75	0	0		0	0	
Other	1	1	100	0	0		0	0		1	1	100	0	0		0	0		0	0	

### 3.5 Post- operative refracted VA improved by one or more line of Snellen chart

**Table 3.5.1: Distribution of post- operative refracted VA improved by one or more line of Snellen chart, at the last follow up**

Type of surgery	Refracted Visual Acuity						
	N	No change		Worse		Improved	
		No.	%	No.	%	No.	%
All surgeries	225	11	5	10	4	204	91
Lens aspiration	7	0	0	1	14	6	86
ECCE	86	3	3	3	3	80	93
PE	120	7	6	4	3	109	91
PE to ECCE	9	1	11	2	22	6	67
ICCE	1	0	0	0	0	1	100
Secondary IOL Implant	2	0	0	0	0	2	100

**Table 3.5.2: Distribution of post- operative refracted VA improved by one or more line of Snellen chart, with and without ocular co-morbidity at the last follow up**

Ocular co-morbidity	Refracted VA		Type of surgery						
			All surgeries	Lens aspiration	ECCE	PE	PE to ECCE	ICCE	Secondary IOL Implant
Yes	N		48	0	22	23	1	1	1
	No change	No.	2	0	1	1	0	0	0
		%	4		5	4	0	0	0
	Worse	No.	4	0	3	1	0	0	0
		%	8		14	4	0	0	0
	Improved	No.	42	0	18	21	1	1	1
	%	88		82	91	100	100	100	
No.	N		177	7	64	97	8	0	1
	No change	No.	9	0	2	6	1	0	0
		%	5	0	3	6	13		0
	Worse	No.	6	1	0	3	2	0	0
		%	3	14	0	3	25		0
	Improved	No.	162	6	62	88	5	0	1
	%	92	86	97	91	63		100	

**Table 3.5.3: Distribution of post-operative refracted VA improved by one or more line of Snellen chart with intra-op complication and without intra-op complication, at the last follow up**

Intra-op complication	Refracted VA	Type of surgery							
		All surgeries	Lens aspiration	ECCE	PE	PE to ECCE	ICCE	Secondary IOL Implant	
Yes	N	31	0	10	13	7	1	0	
	No change	No.	1	0	0	0	1	0	0
		%	3		0	0	14	0	
	Worse	No.	4	0	1	1	2	0	0
		%	13		10	8	29	0	
	Improved	No.	26	0	9	12	4	1	0
%		84		90	92	57	100		
No.	N	194	7	76	107	2	0	2	
	No change	No.	10	0	3	7	0	0	0
		%	5	0	4	7	0		0
	Worse	No.	6	1	2	3	0	0	0
		%	3	14	3	3	0		0
	Improved	No.	178	6	71	97	2	0	2
%		92	86	93	91	100		100	



**Table 3.5.4: Distribution of post-operative refracted VA improved by one or more line of Snellen chart with systemic co-morbidity and without systemic co-morbidity, at the last follow up**

Systemic co-morbidity	Refracted VA		Type of surgery						
			All surgeries	Lens aspiration	ECCE	PE	PE to ECCE	ICCE	Secondary IOL Implant
Yes	N		139	0	56	76	6	1	0
	No change	No.	6	0	1	4	1	0	0
		%	4		2	5	17	0	
	Worse	No.	7	0	3	3	1	0	0
		%	5		5	4	17	0	
	Improved	No.	126	0	52	69	4	1	0
%		91		93	91	67	100		
No.	N		86	7	30	44	3	0	2
	No change	No.	5	0	2	3	0	0	0
		%	6	0	7	7	0		0
	Worse	No.	3	1	0	1	1	0	0
		%	3	14	0	2	33		0
	Improved	No.	78	6	28	40	2	0	2
%		91	86	93	91	67		100	

### 3.6 Factors contributing to post-operative refracted VA of worse than 6/12

**Table 3.6.1: Distribution of factors contributing to post- operative refracted VA of worse than 6/12**

<b>Factor</b>	<b>No.</b>	<b>%</b>
N	503	100
<b>Patients with any factor</b>	380	76
<b>Patients with specific factor</b>		
1.High astigmatism	98	19
2.Posterior capsular opacity	55	11
3.Cystoid macular oedema	21	4
4.Endophthalmitis	3	1
5.Corneal decompensation	16	3
6.Decentered IOL	7	1
7.Retinal detachment	7	1
8.Preexisting ocular co-morbidity	169	34
9.Other	64	13