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# **Research Article**

### WHY RETINOSCOPY? FOR REFRACTIVE CORRECTION

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#### **ABSTRACT**

Aim is to study if retinoscopy is required to find accurate refractive status of eyes. To conclude the above study retinoscopy was done in 500eyes between age group of 0-60yrs. Appropriate eyedrops and ointments were used. Retinoscopy helped in giving accurate refractive status of the eyes specially in cases of mixed and compound astigmatism and in children.

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### **INTRODUCTION**

Retinoscopy with full dilation and relaxing accommodation with suitable eye drops or ointment done in 500 eyes of age group between 0-60 yrs. This gave conclusive results

### Aim and Objectives

To study refractive status in 500 eyes with retinoscopic method to give accurate refractive correction.

### **MATERIALS AND METHODS**

Patients were divided in age group between 0-12yrs/12-30yrs/30-40yrs/40-60yr.

Between 0-12yrs age group, atropine ointment was instilled HS for 3 days to dilate pupil and relax accommodation. Retinoscopy was done on 4th day. Refractive correction given after 15days Between 12-30yrs age group, tropicacyl plus (tropicamide+phenylephrine) drops instilled 3times every 5mins for dilation of pupil and relax accommodation. Retinoscopy done there after. Refractive correction given after 3days.

Between 30-40yrs age group, tropicacyl plus eyedrops instilled 3times for every 5mins for dilation of pupil and relax accommodation. Retinoscopy done thereafter and refraction correction was given after 3days

Between 40-60yrs age group, tropicacyl eyedrops instilled 3times every 5 minutes for dilation of pupil. Retinoscopy done thereafter and refractive correction given on 3rd day.

#### **Observation**

After retinoscopy and refractive correction following facts were observed-

### Sample size for Retinoscopy

Age group	No. of eyes tested		
0-12	130		
12-30	144		
30-40	106		
40-60	120		

#### Type of refractive error in different age group

Age group	Simple myopia	Compound Myopia	Simple hypermetropia	Compound hypermetropia	Mixed astigmatism
0-12	120	8	2		
12-30	90	20	30	2	2
30-40	34	56	6	6	4
40-60		4	52	58	6

### Type of Refractive error in Male and Female

Age group	Sample size	Female	Male
0-12	130	70	60
12-30	144	58	86
30-40	106	56	50
40-60	120	66	54

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### **RESULTS**

It was observed that in age group 0-12 yrs, out of 130 eyes, 120 had simple myopia, 8 had compound myopia and 2 had simple hypermetropia. No significant male to female predilection observed.

In age group between 12-30yrs, out of 144 eyes, 90 had simple myopia, 20 had compound myopia, 30 had simple hypermetropia, 2 had hypermetropia astigmatism and 2 had mixed astigmatism. Female predilection was more than male. In age group 30-40, out of 106 eyes, 34 had simple myopia, 56 had compound myopia, 6 had simple hypermetropia, 6 had compound hypermetropia, 4 had mixed astigmatism. No male to female predilection observed.

In age group 40-60, out of 120 eyes, 4 had compound myopia, 52 had simple hypermetropia, 58 had compound hypermetropia, 6 had mixed astigmatism. No male to female predilection observed.

#### DISCUSSION

Retinoscopy was done with suitable eye drops and ointment in different age groups for dilation and for relaxing accommodation. In paediactric age group simple myopia was observed to be more common. Power of myopia increased with advancing age. Myopia was observed but myopic astigmatism was more in age group between 12-30yrs, with more female predilection. As age advance, hypermetropia and hypermetropic astigmatism was observed.

### CONCLUSION

Retinoscopy definitely gives accurate refractive status of eyes in all age groups specially in children. To correct mixed astigmatism and compound type of refractive error, retinoscopy is the only accurate method.

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