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MENTALLY HANDICAPPED – IS THERE A NEED FOR TIMELY REGULAR OPHTHALMIC ASSESSMENT OF THESE PATIENTS? DO THEY HAVE TO BE OCULAR HANDICAPPED AS WELL?

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ABSTRACT

Aim to assess the common ocular problems in mentally handicapped and emphasize its importance. 40 mentally handicapped patients ranging from 20 to 70 years were examined at various homes for mentally challenged patients. An assessment of vision, anterior segment and fundus was done patients requiring further assessment were evaluated at R.L.J. Hospital and RC, Kolar. Few patients did not cooperate for visual acuity testing. All patients were given required treatment and training and their respective caretakers were instructed and educated on recognizing visual problems and complications. Out of 40 patients ocular manifestations found were refractive error 16 (40%) Strabismus 6 (15%), Glaucoma 7 (17.5%), congenital cataracts 4 (10%), ptosis 2 (5%), microphthalmos 2 (5%), optic atrophy 1 (2.5%), infective pathology 2 (5%). There is definite requirement of regular ophthalmic assessment of mentally handicapped patients from the time they are diagnosed. The refractive error correction as well as orthoptic correction definitely plays a significant role in their rehabilitation. Patients caretakers can be trained to take care of ocular hygiene of such patients. Regular ophthalmic checkup must be made a protocol in institutes taking care of mentally handicapped.

Key Words:- Mentally handicapped, Ophthalmic assessment, Refractive error.

INTRODUCTION

Mental retardation is not a disease or single entity. It refers to a developmental mental disability and that appears in children by birth or under the age of 18 years. In most of the cases, it persists throughout adulthood. World Health Organization estimates that 10% of the world's population has some form of mental disability and 1% suffers from severe incapacitating mental disorders (WHO: Geneva, 1989). Community-based surveys conducted during the past two decades in India showed that the total prevalence of psychiatric disorder was around 5.8% (Reddy MV *et al.*, 1998).

In contrast, recent National Sample Survey Organization report revealed prevalence as little as 0.2% (National Sample Survey Organization, 2003). Recognizing a problem is a pre-requisite to start any form of prevention and care. Mentally handicaps are likely to be at a disadvantage both in recognizing an ocular problem in them and in seeking help.

The latest phase in the development of mental health services in India has been the community care approach. With modern health care, it is possible to treat and cure 60% of the cases with mental morbidity and to avoid disability in 80% (Mental health tenth plan, 2002-2007). Very few community-based studies have been conducted in India to understand the ocular problems. Such studies will be a useful tool for developing

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Community-based rehabilitation programs for the mentally disabled.

Woodruff (1980) screened 1242 mentally handicapped in Canada for refractive and ocular anomalies and Jacobson (1988) examined 228 adults in Sweden. Both studies discovered many previously unidentified anomalies requiring intervention. (Bader D *et al.*, 1980)

It is worth assuming that these individuals should be given the opportunity of seeing the world as others do, even if some fail to interpret it like normal children, or find it intolerable to do so.

Aim and Objectives

To assess the common ocular problems in mentally handicapped and emphasize its importance.

MATERIALS AND METHODS

40 mentally handicapped subjects ranging from 15 to 30 years were examined at homes for mentally challenged patients. Patients requiring further assessment were evaluated at R.L.J. Hospital and RC, Kolar.

Patients are included in this study only after obtaining consent from parents/guardians.

Ocular complaints regarding visual inattention, deviation of eyes, nystagmus and abnormal head posture are enquired. General examination was done in detail. Ophthalmological assessment included routine ocular examination with special reference to structural observation of external eye, examination of strabismus, complete cycloplegic refraction and detailed fundus examination. Other examination like slit lamp examination, IOP measurement are done in indicated

cases. We attempted to measure Visual acuity testing using Snellens chart, if not reliable, the Stycar seven letter card was used. If acuity was below 6/9 pinhole was used. Few patients did not cooperate for visual acuity testing. All patients were given required treatment and training and their respective caretakers were instructed and educated on recognizing visual problems and complications. The data

RESULTS

5 subjects had Down's syndrome. 15 (37.5%) had no known reason for their mental handicap, and 18 (45%) had a collection of other diagnoses. Two subjects had cerebral palsy.

Age and Sex at Presentation

The age range of the sample is shown in TABLE 1. 25 were male and 15 were female.

Distribution of Ocular Problems (Figure 1)

Most common ocular problem we found was refractive error 16 (40%) (Figure 2) followed by glaucoma 7 (17.5%) (Figure 3), Strabismus 6 (15%) (Figure 4), Cataract 4 (10%), microphthalmia 2 (5%), ptosis 2 (5%).

Age wise distribution of ocular distribution pattern (Figure 5) shows refractive error to be the dominant ocular condition in all the age group, while glaucoma was the second most ocular pathology above 35 years. Others group includes infections, nystagmus, fundus changes.

Figure 1. Distribution of pathologies in the subjects

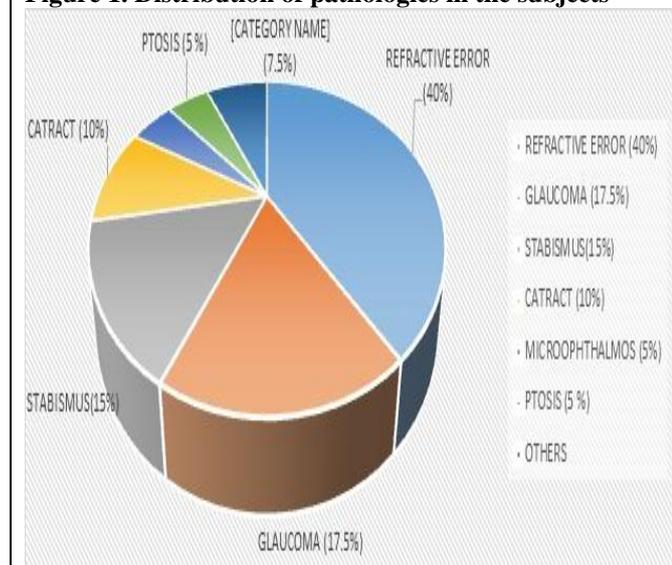


Figure 2. Refractive Error: Most common refractive error was simple hypermetropia followed by simple myopia.

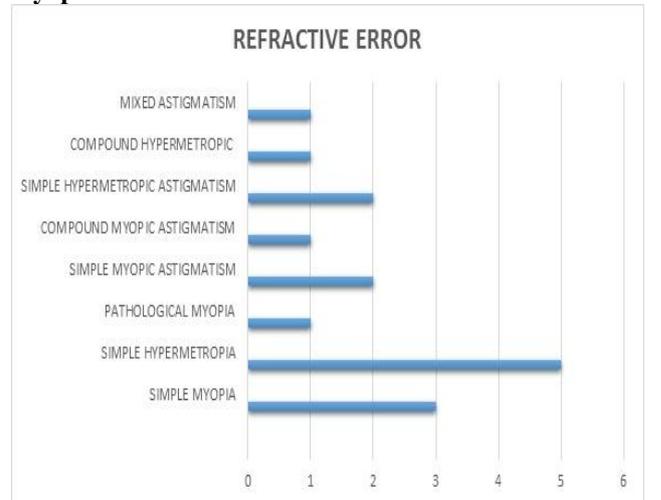


Figure 3. Glaucoma: Most common glaucoma found was primary open angle glaucoma.

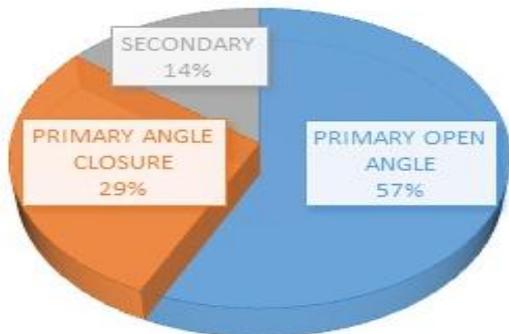


Figure 4. Strabismus Exotropia most common followed by esotropias.

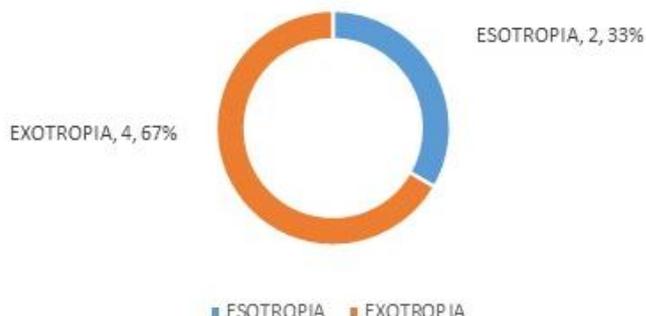


Figure 5. Age wise distribution of pathologies

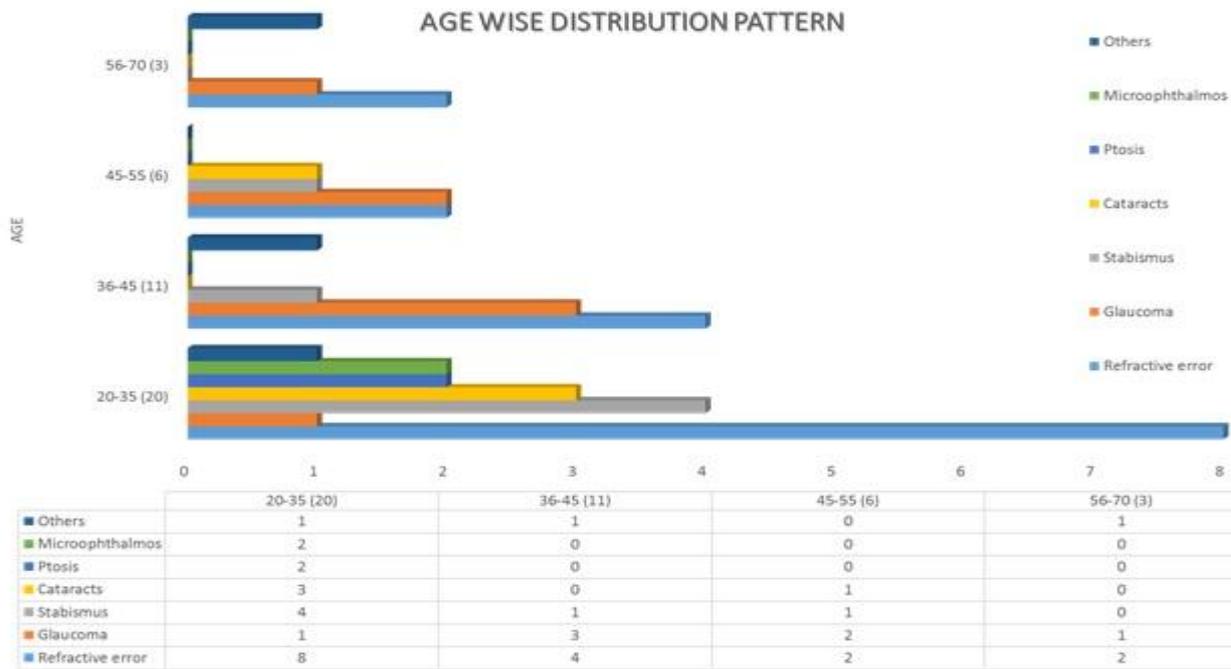


Table 1. Age wise distribution of patients

Age groups	No of subjects
20-35	20
36-45	11
46-55	6
56-70	3

DISCUSSION

25 Males and 15 Females were evaluated. Refractive error consists of 40%, most prevalent in all the groups. This finding is consistent with previous study at Nepal, which was a study conducted to find out the refractive error among the students in the Nepal at school

for mentally retarded children where Refractive error were found in 34.4%. Vision being the best sense for their education and daily activities (Ghising R. *et al.*, 2007). Another study by Solomon et al found that most common ocular manifestation was refractive errors (51.2%)

(Solomon CB et al., 2011) A study by Gogate⁹ et al with 664 mentally handicapped children found 144 (23.7%) children who had refractive error. In the present study 2nd most common ocular manifestation noted was glaucoma in 7 (17.5%) cases, mostly prevalent in the 20-35 age groups (Gogate. *et al.*, 2009) as opposed to and Solomon et al who found optic atrophy as 2nd most common finding (Solomon CB et al., 2011).

In our study strabismus was found in 6 patients (15%) comparable to study where 83(15.7%) out of 664 cases had strabismus in a study by Gogate. *et al.*, (2009).

Congenital untreated cataracts were found 4 individuals, resulting in sensory deprivation amblyopia in 2 patients, and ocular deviation in all the 4 individuals. 30% of uncorrected refractive error patients were given glasses. A significant improvement in a large range of behaviors and activities after fitting glasses in a study of Bader D et al., (1980). Ptosis was found in 5% and others

included infections, fundus changes. Chorioretinal scars due to intrauterine infections was seen in 1 patient. Microphthalmos was seen in 2 patients. Many patients had multiple coexistent problems. A limitation of this study is that age group is in a varied range and sample size is small.

CONCLUSION

The refractive error correction as well as orthoptic correction and definitely plays a significant role in their rehabilitation. Low cost durable spectacles should be provided to these patients. Usually people with multiple disabilities undergo rehabilitation in motor development, speech and other tasks but often visual problems are overlooked so there is profound and definite requirement of regular ophthalmic assessment of mentally handicapped patients from the time they are diagnosed so that these individuals can evolve to their maximum potential.

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