ORIGINAL ARTICLE

Determinants of Amblyopia in Patients Presenting to Eye Department, Mayo Hospital, Lahore

JAVERIA HAROON, MARIA JAVED, RUMESA AFTAB, *MUNEEBA NASIR, RAMSHA NADEEM, RIJAB NASIR, YUSRA AROOJ*

ABSTRACT

Aim: To observe the determinants of amblyopia in subjects presenting to ophthalmology department, Mayo Hospital, Lahore.

Methods: A sample of 100 diagnosed cases of Amblyopia was taken from the OPD of Eye Department, Mayo Hospital, Lahore. They were assessed for the cause of Amblyopia by using Snellen's Test Chart, Ophthalmoscopy, Cover/uncover and alternate cover tests.

Results: Using the criteria of best corrected visual acuity of <6/9 in Snellen's chart and < 0.2 log MAR chart out of 100 diagnosed cases of amblyopia, 58% were suffering from strabismus, 37% were suffering from anisometropia, 28% of them had hypermetropia while only 9% were myopic, 5% were having stimulus deprivation amblyopia, 4% of whom were suffering from ptosis while only 1% had cataract.

Conclusion: Most of the subjects with amblyopia were in age ranges of 5-10 years and most common cause of amblyopia was strabismic type i.e. 58% while second common cause of amblyopia was hypermetropic type i.e. 28%.

Keywords: Amblyopia, Anisometropia, Hypermetropia

INTRODUCTION

Amblyopia is reduction in visual acuity (VA) without visible organic abnormalities which is due to blurred or absent retinal image during visual system development[1,2]. In America, amblyopia is unilateral or bilateral decrease in best corrected VA, not attributed to structural abnormality of the eye or posterior visual pathways[3]. Robaie et al[4] observed 40.5% strabismic amblyopia and 34.4% anisometropia while 18.8% mixed and 6.3% stimulus depriavition amblyopia. For preventing visual abnormality, it is necessary to detect amblyopia as early as possible. In a study performed in Children hospital, PIMS, Islamabad, there is higher incidence of amblyopia in earlier age groups i.e., 5-10 years. Early diagnosis of amblyopia and early treatment reduced the morbidity in all over the world[5].

METHODOLOGY

This descriptive study on 100 diagnosed cases of amblyopic patients was conducted in Mayo Hospital Eye Department. 5-15 yrs of age, subjects having best corrected VA in the amblyopic eye <6/9 and Visual acuity in sound eye > 6/9 were included in the study. Presence of ocular etiology for reduced visual acuity, congenital abnormality with retinopathy, patients with retinoblastoma, with glaucoma and patients presenting with pathological myopia were excluded in the study. Simple Random Technique was used.

Data collection procedure: Diagnosed amblyopic patients fulfilling the inclusion and exclusion criteria were taken from indoor and outdoor of Eye Department, Mayo Hospital in the next three months. They were assessed for the cause of Amblyopia by using Snellen's Test Chart, Ophthalmoscopy, Cover/ uncover and alternate cover tests. All the data was recorded accurately and analyzed after three months.

Data analysis: All the collected data was entered and analyzed in computer program SPSS v.20. Frequency and determinants of amblyopic patients were be collected.

RESULTS

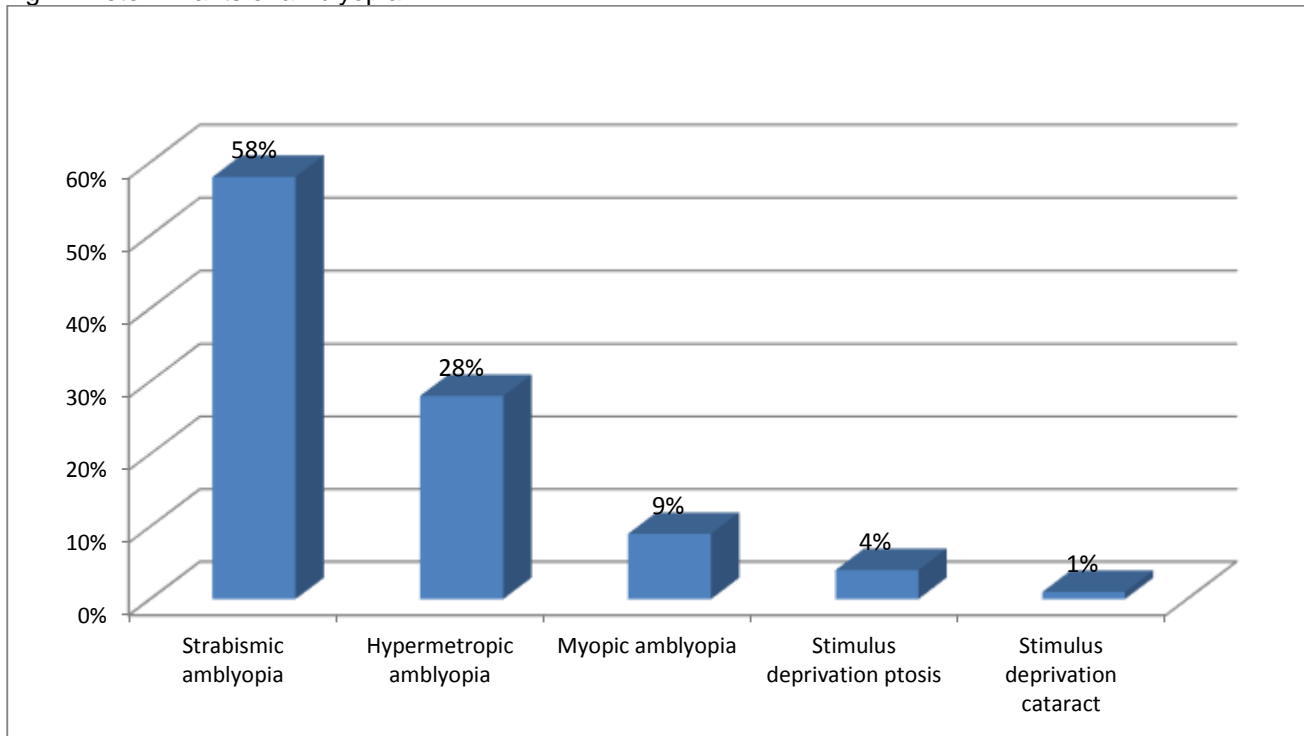The detail of results is given in Table 1 and Fig. 1

Table 1: Types of Amblyopia

Types of amblyopia	n	%age
Strabismic	58	58
Hypermetropic	28	28
Myopic	09	09
Stimulus-deprivation ptosis	04	04
Stimulus-deprivation cataract	01	01
Total subjects	100	100

House Offices, Mayo Hospital, Lahore
Correspondence to: Dr. Javeria Haroon Email: drmuhammadfarooqmalik@gmail.com

Fig. 1: Determinants of amblyopia

DISCUSSION

In this study, out of 100 cases, 58(58%) were strabismic, 28(28%) were hypermetropic, 9(9%) myopic, 4(4%) stimulus deprivation ptosis and only 1(1%) of stimulus depriavition cataract. These findings are consistent with the results of Robaie et al[4] who also observed 40.5% Strabismic amblyopia and 34.4% anisometropia while 18.8% mixed and 6.3% stimulus depriavition amblyopia. For preventing visual abnormality, it is necessary to detect amblyopia as early as possible.

In this study, 67(67%) subjects are in the age ranges of 5-10 years. In another study performed in Children hospital, PIMS, Islamabad, there is higher incidence of amblyopia in earlier age groups i.e., 5-10 years[5]. Early diagnosis of amblyopia and early treatment reduced the morbidity in all over the world.

CONCLUSION

- Most of the subjects with amblyopia were in age ranges of 5-10 years.

- Most common cause of amblyopia was strabismic type i.e., 58%.
- Second common cause of amblyopia was hypermetropic type i.e. 28%

REFERENCES

1. Friendly DS. Amblyopia: definition, classification, diagnosis, and management considerations for pediatricians, family physicians, and general practitioners. Pediatr Clin North Am 1987;34(6):pp 1389-401.
2. Kaski JJ, Bowling B. Clinical ophthalmology A Systematic Approach.edi 7th.UK:Elsevier;2011:p946.
3. De Santis D. Amblyopia. Pediatr Clin North Am 2014;61(3):pp505-518.
4. Robaei D, Kathryn A. Annette K et al. Causes and Associations of Amblyopia in a Population-Based Sample of 6-Year-Old Australian Children. Arch Ophthalmol 2006;124(6):pp 878-884.
5. Akhtar F. Prevalence and causes of amblyopia in children in a hospital-setting. Al-Shifa J Ophthalmol 2005;1(2):pp83-87.