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 development1,2. In America, amblyopia is unilateral or bilateral decrease in best corrected VA, not attributed to structural abnormality of the eye or posterior visual pathways3. Robaie et al4 observed 40.5% strabismic amblyopia and 34.4% anisometropia while 18.8% mixed and 6.3% stimulus deprivation 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 world5.

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>
<thead>
<tr>
<th>Types of amblyopia</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strabismic</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Hypermetropic</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Myopic</td>
<td>09</td>
<td>09</td>
</tr>
<tr>
<td>Stimulus-deprivation ptosis</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>Stimulus-deprivation cataract</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>Total subjects</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1: Types of Amblyopia

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