SUMMARY AND CONCLUSION

The aim of this work, is to study the incidence of different types of amblyopia in Egypt, and investigation of these cases by available methods, and comparison between different types.

105 cases were examined and classified into four groups according to the causes of amblyopia.

First group was strabismic amblyopia and includes 18 cases from case number 1 to 8.

Second group was strabismic amblyopia with anisometropia (the diopteric differences between the two eyes is one diopter or more) and includes 45 cases from case number 19 to case No. 63.

Third group was anisometropic amblyopia in straight eyes and consist of 27 cases from case No. 64 to case No. 90.

Fourth group was organic amblyopia due to organic lesion in the anterior segment of the eye, and consist of 15 cases from case No. 91 to case No. 105.

So the incidence of different types of amblyopia in Egypt as follow:

| Strabismic amblyopia | 17.14 % |
|--|---------|
| Anisometropic amblyopia with and without | |
| strabismus | 68.57 % |
| Organic amblyopia | 14.28 % |

The patients were subjected to:

- Estimation of the visual acuity with and without correction.
- Fundus examination and determination the types of fixation.
- Measuring the angle of squint (in the first and second groups)
- Examination for binocular vision and determination the degree of suppression.
- Plotting the central field of vision for both eyes using Bjerrums screen with 1000 isopter.

Measuring the dark adaptation curve for both eyes using Goldeman Weekar's adaptometer (Fig. 10).

Types of squint:

The convergent cases were more than divergent cases.

According to the sex:

The incidence of males were more than females.

The depth of amblyopia

It was found that the amblyopia was more deep in the first and fourth group and shallow in the second group and moderate in the third group.

The depth of amblyopia increases with early onset of squint, anisometropia or organic lesion, also with the long duration of these deffects. But age of patient has no effect on the depth of amblyopia.

Refractive errores:

Anisometropia considered when the diopteric differences between the two eyes is I.O diopter or more, and it was found that most of the cases of anisometropia have myopic errore, followed by hypermetropic, mixed then astigmatic errore.

The depth of amblyopia increases with high degree of anisometropia in the second group (strabismic amblyopia with anisometropia), but in the third group (anisometropic amblyopia) no correlation between the degree of anisometropia and depth of amblyopia.

Angle of squint:

In this work, it was found that the amblyopia was more deep with smaller angle of squint than with bigger angle in case of convergent squint, but in cases of divergent squint the depth of amblyopia increases with bigger angle of deviation.

Eccentric fixation:

It was found that 10 cases in first group have eccentric fixation 55.55 % and 10 cases in the second group have eccentric fixation 22.22 % with incidence of 31.74 % because of most of the cases in first group have early onset of squint (less than 5 years age, also, it was found that the depth of amblyopia increases in cases of eccentric fixation.

Binocular vision:

It was found that the early onset of squint, anisometropia or organic lesion has direct effect on binocular vision and no relation between the degree of anisometropia and binocular vision.

Central field of vision:

It was found that suppression scotoma occurs in:

| 6 | cases in first group | 50 | % |
|----|---------------------------|----|----|
| 14 | cases in second group | 40 | -% |
| 15 | cases in the third group | 60 | % |
| 12 | cases in the fourth group | 80 | % |

The scotomata were differ in sit, size and shape

Dark adaptation curve:

The dark adaptation curves were done for both the amblyopic eyes and the normal fellow eyes, and it was found that:

All dark adaptation curves for amblyopic eyes need high threshold of illumination than normal fellow eyes.

The cone-rod break occurs at the 5th. minutes in all groupes except in the fourth group, it occurs at eleven minutes.

Some of the cases have delayed curves in both eyes, but the amblyopic curve need high threshold of illumination.