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Profile of Low Vision Population Attending Retina Clinic, RIMS, Imphal Manipur

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Abstract

The main purpose of the study is to assess the cause of low vision over a period of 15 months. A retrospective study of 168 patients examined at Retina clinic, RIMS, Imphal over the period of 15 months was reviewed and information was extracted. The low vision patients in the clinic are referred from general eye OPD and from different specialty clinics in the centre. Age and gender, occupation, house location, cause of visual impairment were analyzed. The majority of patients (33.93%) were from the age groups between 45-59 years of age. Older age group more than 60 years comprised of 28.57%. A significant numbers of low vision patients were also found in younger age group <16 years(8.33%). 58% patients were male and 42% were female. Male were found to be predominant in all age groups. The major cause of low vision was found to be diabetic retinopathy (23.21%) followed by other Retinal vascular diseases (11.90%), choroidal lesions (10.71%), uncorrected RE and Amblyopia (8.93%), Retinitis Pigmentosa (7.74%), and ARMD(5.35%).

Keywords: *amblyopia, choroidal lesions, diabetic retinopathy, low vision, retinitis pigmentosa,*

1. INTRODUCTION

Low vision can affect people of all ages and can have an impact on many aspects of a person's life. It may cause problems with reading, using the computer, watching TV, recognizing faces, and daily living and leisure activities such as cooking, walking and active sports. The World Health Organization (WHO) defines low vision as best corrected visual acuity less than 6/18 to 6/60 or a field of vision between 20 to 30 degrees in better eye.

The first global estimate of the extent of visual impairment, in 1975, indicated that there were 28 million blind people. Estimates based on the 1990 world population indicated that there were 38 million blind people and almost 110 million with low vision. This estimate was later extrapolated, first to the 1996 world population (45 million blind and 135 million people with low vision) and then to the projected 2020 population (76 million blind). About 285 million people are visually impaired of whom nearly 39 million are blind and 246 million have low vision. 90% of the world's

visually impaired people live in developing countries [1]. The number of blind people in India,are 12 million, with the estimated increase to 15 million expected by 2020, and additional 52 million visually impaired [2]. A recent population-based study has shown the prevalence of low vision to be 1.05% in India [3]

The purpose of this retrospective study is to assess the cause of low vision attending Retina clinic, Regional Institute of Medical Sciences and Hospital, Imphal, Manipur over a period of 15 months (jan 2013-mar 2014). The low vision patients in the clinic are referred from general eye OPD and from different specialty clinics in the institute.

2. MATERIALS AND METHODS

A total of 168 low vision patients examined over the period of 15 months between Jan 2013 to mar 2014 were retrospectively reviewed and information was extracted. Age and gender, occupation, house location and cause of low vision were analyzed. Cataract, Corneal blindness and other anterior segment pathology patient are excluded from this study.

3. RESULTS

3.1 Age and Gender distribution

Total of 168 patients seen during the period of 15 months, 97(58%) males and 71 (42%) females. Their ages ranged from 6 to 87 years and the majority of patients (33.93%) were from the age groups between 45-59 years of age. Male were found to be predominant in all age groups. A significant numbers of low vision patients were also found in younger age group <16years(8.33%).

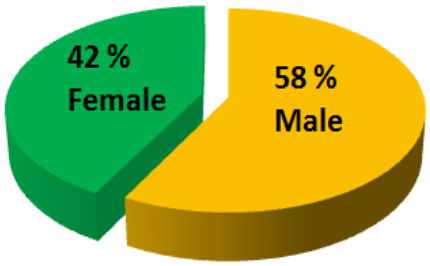

Fig.1.:Gender distribution

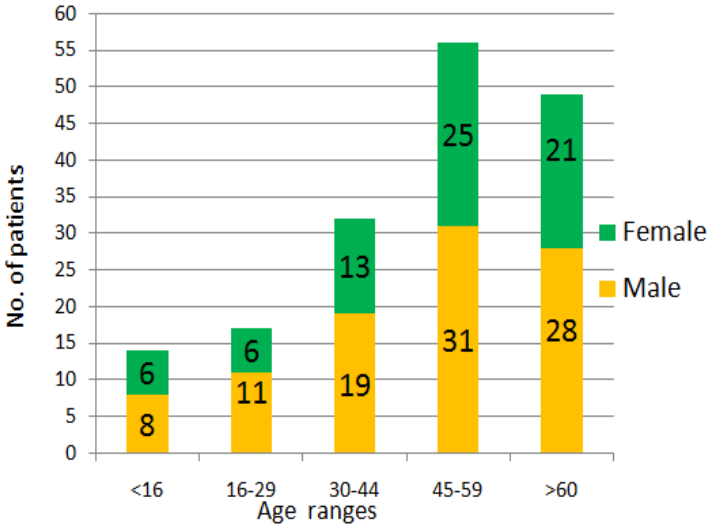

Fig.2. Age and gender distribution

3.2 Occupation

Majority of the patients seeking low vision care were employed (51%) followed by students (16%) and farmers (14%)).Housewife constitute 11% and only 8% were living their retired life.

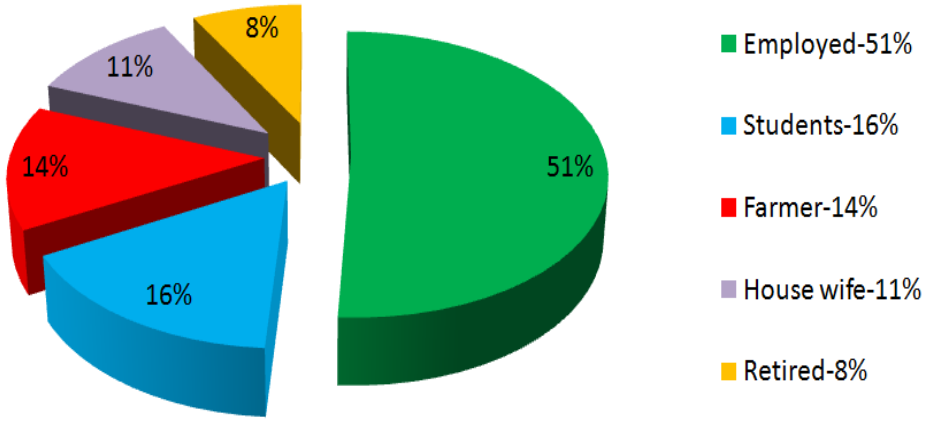

Fig .3. Occupation

3.3 House location

There were 125 patients (75%) who resides in Imphal and other towns of Manipur. Only 43(25%) are from rural areas

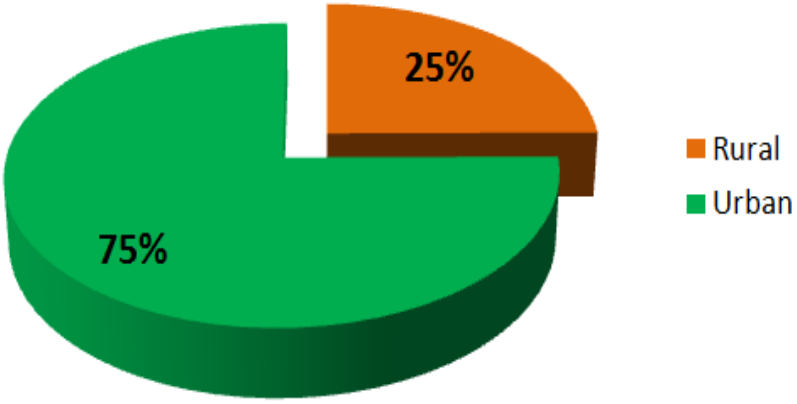

Fig .4. House location.

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3.4 Causes of low vision

The most common cause of low vision was found to be Diabetic Retinopathy(23.21%) followed by Other Retinal vascular diseases such CRVO and BRVO etc which constitute about (11.90%) choroidal lesions (10.71%), uncorrected RE like high myopia and amblyopia (8.93%),Retinitis Pigmentosa (7.74%), and ARMD (5.35%).

Causes of Low Vision	No. of patients	Percentage
Diabetic retinopathy	39	23.21%
Other Retinal vascular diseases	20	11.90%
Choroidal lesions	18	10.71%
Uncorrected RE and Amblyopia	15	8.93%
Retinitis Pigmentosa	13	7.74%
ARMD	9	5.35%
Glaucoma	8	4.76%
Optic Atrophy and neuritis	7	4.17%
Retinal Detachment	7	4.17%
Macular Hole	6	3.57%
Choroidal coloboma	5	2.98%
Angoid Streak	3	1.78%
Post staphyloma	2	1.19%
Toxoplasmosis	2	1.19%
Others	14	8.33%

Fig .5. Causes of low vision.

4. DISCUSSION

There have been contrasting reports on the distribution of low vision patients by gender. In Several previous studies [4,5,6] have shown a predominance of females in their low vision clinic population. However, in a study performed by Shad et al. in Pakistan, a greater proportion of low vision patients were male (73.8%)[7]. In another study performed in Malaysia by Mohiddin and Yousuf,[8] the male to female ratio of low vision patients was 2.21:1. Barbie,[9] in reporting the characteristics of the Nigerian low vision population in Evangelical Church of West Africa (ECWA) eye hospital, found that 70.3% of the study population was male.In consistent with the studies in the developing countries, this study also shows that the ratio of males to females is 1.36:1. This signifies a greater prevalence of low vision in the male population, however, it may also be confounded by widespread gender-based discrimination in this part of the world and by males having easy access to the hospitals. In Nepal and in parts of India like Bihar and Uttar Pradesh, there is huge discrimination based on gender. Females have to depend upon males for every aspect of daily living and decision making. The gender-based discrimination has limited the independence of women in terms of health and educational opportunities, mobility, and decision making. Such structure of the societies means that females are always lagging far behind regarding health education and financial control, making their access to hospitals even more difficult. Moreover, as males have more economic power as head of the family and bread winner, males seek health access to live up to their family expectations. This signifies a greater need for community-based screening programs targeting the female population in this part of the world.

This study also showed that majority of low vision patients are from the age group between 30 to 60 yrs who seeks medical advises. One possible explanation is that the patients attending the clinic were from the working age group and for whom poor vision is a big burden in employment . The fewer number

of patients in the age group <16 yrs years might be due to lack of such healthcare service or feeling shy, embarrassed or uneasy to use vision aids and spectacles and become self-conscious..

The most common causes of low vision is cataract in developing country[10] but in this study Diabetic Retinopathy is the common cause as this study was conducted only in those low vision which involves the posterior segments. The reason for high prevalence in urban areas may be due to lack of such specialized healthcare and due to change of lifestyle.

5. CONCLUSION

The demographic and clinical characteristics of low vision patients seen in this study are similar to that of patients in other developing countries [11,12] but different from those in developed countries. In one of the studies conducted in developed countries the common causes are AMD and Glaucoma[13]. Age-related maculopathy did not feature heavily in our clinic population because of the greater number of young people and middle age group. Among those over 60 years of age, the causes of low vision were similar to those found in other studies, where age-related maculopathy and choroidal lesions are the most common presenting condition. This study showed that most common cause of low vision is Diabetic Retinopathy and majority of low vision patients are from the urban and working age group who seeks low vision services for their activities.

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