



Original Article

Profile of low vision patients attending Low Vision Clinic

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Purpose: To study Profile of low vision population attending low vision clinic including color vision, contrast sensitivity, visual acuity, ocular history and occupation.

Patients and Methods: 100 patients visiting Low Vision Clinic of Mayo Hospital Lahore were examined. The parameters compared were color vision, contrast sensitivity, visual acuity, ocular history and occupation. Confidence interval of 0.95 with α of 0.05 was taken. The study was a cross sectional descriptive study. Fisher's exact test was applied to this study.

Results: Most of patients who visit low vision clinic have contrast sensitivity 2.5% (male: 38.34%, female: 56.41%) and 4 plate color vision (male: 60.66%, female: 61.54%). It also show that the main diagnosis in patients who visit low vision is Retinitis pigmentosa (male: 25.41%, female: 20.51%), followed by the large number of male patients of ARMD (18.03%) and Pseudophakia (14.75%). The female patients visiting low vision clinic are normally diabetic retinopathy (19.23%) and pseudophakia (14.75%). It also described that age of patients who visits low vision in large number; female patients: 41-45 years (25.64%) followed by 11-15 years (17.95%) and 46-50 or 21-25 years (10.26%), male patients: 61-70 years (21.31%) dominant figure, followed by 51-55 or 41-45 years (13.11%).

Conclusion: Most of the patients presented with no medical history (45%) in low vision clinic. This was followed by patients having diabetes (25%) and hypertension (17%). Ocular manifestation among people who visit the low vision clinic include pseudophakic patients (13%), posterior staphyloma (12%) and high myopic (8%). Most common age group of female patients visiting low vision is 41-45 years while most of male patients are 61-70 years.

Keypoints: low vision, blindness, low vision causes, low vision devices.

Introduction

The definition of low vision by the World Health Organization is that the person who has an impairment of visual function such as visual acuity etc. after the prescription for refractive error is less than 0.5 in log MAR or visual field from the point of fixation is less than ten degrees, is known as low vision patient. Those who are affected by low vision can utilize or those who are able to utilize their visual needs for detection. The definition described by WHO of low vision doesn't include those individuals whose visual functions can be improved by the clinical methods such as refractive surgery etc.

The practice of eye doctors (ophthalmologists) in clinical field, some center of care might not be able to provide educational and training necessities for rehabilitation centers. Each newborn child has its own identity, which has adaptation for low vision. For the purpose of obtaining as much as one can benefit, from educational and other welfare organizations for the children the eye specialists must learn to know that how to partner efficiently with other member in that organization. Low vision restricts life experience, working abilities, stimulus responses, directions and multi-system skills of subjects. All these factors may affect the children's educational and social developments. According to the WHO these facilities should be provided at three basic stages; primary, secondary and tertiary levels. At the Primary stage the community based workers reach the community, identify the patients with low vision and refer them to the next higher (Secondary) level of service provider, along with recommendations on environmental changes. On tertiary level, a team of experienced and educated trainers offer advanced care in a specially developed low vision center or a special education institution. The main difference between these two different stages is the secondary stage of eye care, one of the district level stage low vision care. While planning for low vision services at any level, we must keep in mind local communities' factors such as population density, geographical coverage, and accessibility.

The major causes which affect the quality of life are blindness and low vision, with major role. The financial crisis or an individual as well as his or her family is mainly affected by low vision.

Establishment of low vision clinics is a challenge in many developing countries. A study conducted in Nepal with basic aim to enlist the characteristics of patients visiting low vision clinic. The patients visiting low vision clinic were asked simple questions, their vision was examined and low vision devices were prescribed to them. Total 214 cases were studied. The mean age was 29 with the range 4 to 86 years (3 male: 1 female). There were mostly children of less than fifteen (53%) visiting low vision clinic. The commonest causes

of low vision were pseudo-phakia, aphakia (20.60%), amblyopia (18.20%) retinitis pigmentosa (17.80%), macular disorder (20%) and retinitis pigmentosa (20%) in the adult and elderly patients, while lens related (24.6%) and amblyopia (21.1%) were the commonest causes in children. It was concluded that the demographic and clinical characteristics of low vision patients seen in this clinic in a developing country were different from those in developed countries.

Methods

This descriptive cross sectional study was conducted at College of Ophthalmology and Allied Vision Sciences (COAVS) Lahore from September to December 2016. Data (occupation, visual acuity, color vision, contrast sensitivity, ocular and medical history) of 100 Patients visiting COAVS and Mayo Hospital Lahore, was collected. The data was recorded on the self-made proforma, fed on the computer using the SPSS Statistics 22.0 software. The results were analyzed and tabulated using the same software.

Results

Fig 1: Age Break up

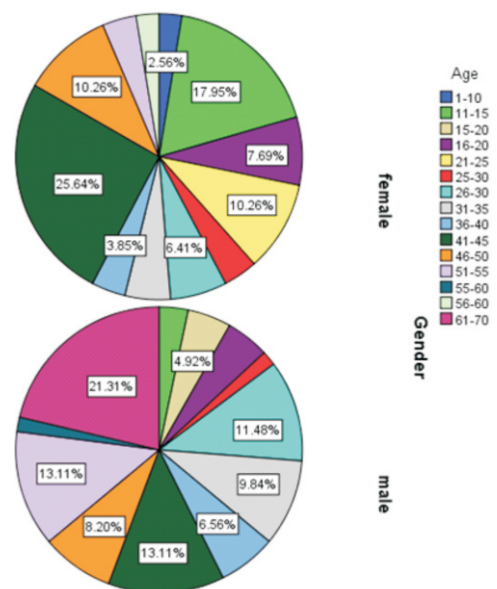


Fig. 1 indicates that, the age of female patients visiting low vision clinic in large number is 41-45 years (25.64%) followed by 11-15 years (17.95%) and 46-50 or 21-25 years (10.26%). The pie chart also shows the male age ratio with 61-70 years (21.31%) dominant figure, followed by 51-55 or 41-45 years (13.11%) and 26-30 years (11.48%)

Fig 2: Diagnosis

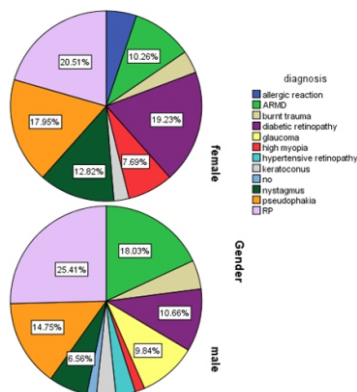
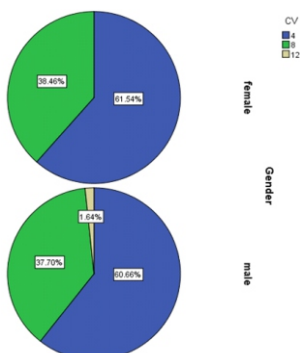


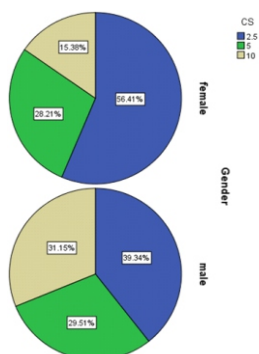
Fig. 2 shows that mostly patients who visit low vision clinic are Retinitis pigmentosa (male: 25.41%, female:20.51%). Followed by the large number of male patients of ARMD (18.03%) and Pseudophakia (14.75%). The female patients visiting low vision clinic are normally diabetic retinopathy (19.23%) and pseudophakia (14.75%).

Fig 3: Color Vision



The color vision was recorded by ishihara test. Fig. 3 shows that there are mostly patients who visit low vision clinic have 4 plate color vision (male: 60.66%, female: 61.54%), followed by those who have 8 plates reading (male: 37.70%, female: 38.46%).

Fig 4: Contrast Sensitivity



The contrast sensitivity was recorded by pelli robsin chart. Fig. 4 shows that there are mostly patients who visit low vision clinic have contrast sensitivity is 2.5% (male: 38.34%, female: 56.41%) followed by 10% contrast sensitivity in male (male: 31.15%) and 5% in female (28.21%).

Conclusion

Most of patients who visit low vision clinic have contrast sensitivity 2.5% (male: 38.34%, female: 56.41%) and 4 plate color vision (male: 60.66%, female: 61.54%). It also shows that the main diagnosis in patients who visits low vision is Retinitis pigmentosa (male: 25.41%, female: 20.51%), followed by the large number of male patients of ARMD (18.03%) and Pseudophakia (14.75%). The female patients visiting low vision clinic are normally diabetic retinopathy (19.23%) and pseudophakia (14.75%). It also described that age of patients who visits low vision in large number; female patients: 41-45 years (25.64%) followed by 11-15 years (17.95%) and 46-50 or 21-25 years (10.26%), male patients: 61-70 years (21.31%) dominant figure, followed by 51-55 or 41-45 years (13.11%).

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