

A PATTERN OF OCULAR MORBIDITY IN PATIENTS ATTENDING ANOPHTALMIC CLINIC IN A RURAL PART OF WESTERN NEPAL

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Abstract

Background/ Aim: Very few reports exist regarding the causes of ocular morbidity in western Nepal. The study is performed to identify the causes of ocular morbidity in a clinic at Waling in western Nepal.

Method: A retrospective study of all patients attending the eye clinic at Waling from August 2010 to August 2011 was done.

Result: The study included 915 patients, 617 (67.5%) females, and 298 (32.5 %) males. Refractive error was the most common ocular morbidity accounting 26.8% followed by conjunctivitis 20.6%, cataract 11.8%, pterygium 6%, chalazion/stye 4%, ectropion/entropion 3.9%, keratitis 3.8%, dry eyes 2.8%, and corneal opacities 2.3%.

Conclusion: The study gives a picture of pattern of ocular disease in western Nepal which is helpful in planning & management.

Key words: *Morbidity, ocular diseases*

Introduction

Nepal is a developing country where health services are not accessible to majority of the population. Ophthalmology is one of the important specialties in medicare services. The number of ophthalmologist and the number of eye care service is not accessible to the entire population. So blindness and ocular disease is a major problem in Nepal. This study was performed to detect the pattern of ocular disease in a clinic in Waling municipality of Western Nepal.

The study was performed in a clinic in Waling which is a fully equipped with a refraction unit, slit lamp, direct and indirect ophthalmoscope and minor operating theatre. The clinic is running since last fourteen years and providing

considerable eye care service to the community of Syanja district. of western Nepal. Waling is one of three municipality of Syanja district. Putali bazaar and Waling are the two municipalities of Syanja district.

A retrospective study was done from August 2010 to August 2011. A total number of nine hundred fifteen patients were seen. Findings pertaining to the pattern of ocular diseases in the community will be compared with that of the hospital based studies.

This study would also help to generate baseline information, which will be beneficial for program formulation and planning of community based activities

Materials and methods

All patients who attended the eye clinic at Waling from August 2010 to August 2011 were enlisted for this study. The patient data was collected from the OPD register at the clinic and analyzed retrospectively. A total of 915 patients attended the eye clinic, which constituted the sample size of the study.

Visual acuity was evaluated using the Snellen's chart for the literates and illiterate E chart for the illiterates and refraction was done if required. Patients were examined with slit lamp, direct and indirect ophthalmoscope for funduscopy, Schiottz tonometer for measuring intra ocular pressure. Cyclorefraction, Schirmer test and syringing were done if required. Torchlight was used to examine young children.

Minor surgical procedures like removal of foreign bodies, surgeries for chalazion, abscess, entropion, lid laceration were done under local anaesthesia.

Patients requiring further investigations like glaucoma, retinal detachment, diabetes retinopathy and those requiring surgeries were referred to higher centers.

All patients' data were entered and analyzed using SPSS software 11.7 version.

Results

A total of 915 patients were examined, out of which 617 (67.5%) were females and 298 (32.5 %) were males. Patients examined were from all age groups, out of which maximum numbers of patients were females and maximum numbers of patients were in age group 11 to 20 years. The age and sex pattern is shown in table

Table-1: Age and sex distribution of patients

Age in years	Male		Female	
	No	(%)	No	(%)
Below 10	46	5	43	4.7
11-20	84	9.2	187	20.4
21-30	39	4.3	123	13.5
31-40	36	3.9	85	9.3
41-50	24	2.6	68	7.5
51-60	25	2.7	36	3.9
Above 60	44	4.8	75	8.2
Total	298	32.5	617	67.5

Table 2 shows pattern of ocular diseases. Refractive error was the most common ocular morbidity accounting 26.8% followed by conjunctivitis 20.6%, cataract 11.8%, pterygium 6%, chalazion/stye 4%, ectropion/entropion 3.9%, keratitis 3.8%, dry eyes 2.8%, and corneal opacities 2.3%. Posterior segment diseases were diabetes retinopathy 0.2% and age related macular degeneration 1.1%. Trauma related conditions were foreign bodies 1.3%, subconjunctival haemorrhage 0.8%, and eyelid injury 0.3%.

Table-2: Pattern of ocular disease

Diseases	No of patients	Percentage (%)
Refractive errors	245	26.8
Strabismus	8	0.9
Lid related: Entropion/Ectropion	36	3.9
Stye/Chalazion	37	4
Conjunctivitis	184	20.6
Pterygium/pinguecula	55	6
Episcleritis	16	1.7
Dry eyes	26	2.8
Dacryocystitis	12	1.3
Keratitis	35	3.8
Corneal opacities	21	2.3
Cataract	108	11.8
Pseudophakia	19	2.1
Glaucoma & glaucoma suspect	15	1.6
Retina related Diabetic retinopathy	2	0.2
Age related macular degeneration	10	1.1
Trauma related Foreign body	12	1.3
Subconjunctival haemorrhage	7	0.8
Lid injury	3	0.3
NAD	21	2.3
Miscellaneous	43	4.4

It was observed that refractive errors and conjunctivitis were seen more in the younger age groups, whereas cataract and posterior segment diseases were seen in the older age groups

Discussion

The study shows that females (67.5%) were more common than males (32.5%). This is because of easy access of the clinic which enables them to seek medical help without being dependent on their spouses or family members. Similar results showing a female preponderance was seen in the National Blindness Survey¹, where the survey took place at the rural areas thereby enabling the females for easy access to eye care services. Female preponderance was also seen in a study performed by Sapkota Y D, Pokhrel G P et al in Gandaki zone.² Similar results were obtained in a study performed by A Sherchan, R P Kandel, et al in Lumbini Zone and Chetwan district of Nepal where women constituted 52% and 53% of the total enumerated and examined population, respectively.³ This is different from most hospital based studies where there is a male preponderance^{4, 5, 6}

Refractive error was the most common ocular morbidity accounting 26.8% followed by conjunctivitis 20.6%, cataract 11.8%, pterygium 6%, chalazion/stye 4%, ectropion/entropion 3.9%, keratitis 3.8%, dry eyes 2.8%, and corneal opacities 2.3%. Similar results were seen in a study performed in Bhaktapur⁷ where refractive error was the primary ocular morbidity accounting for 22.5%, followed by cataract 17.4% and extra ocular diseases, like conjunctivitis 14.9%, conjunctival degenerations (pterygium and pinguecula) 10.8%.

Similar results were seen in a hospital based study done at Shree Birendra Hospital,⁴ where in all age group, except above 60 years, the most common ocular disease is conjunctival & scleral disorders 23.7% followed by refractive error 18.8% while in age group above 60 years lens disorder 66% was

the most common disease followed by conjunctiva & scleral problem 10.4% and refractive error 5.4%.

In a study performed in Gandaki zone², cataract was the principal cause of blindness in 60.5%. Other causes of visual impairment were refractive error 11.7%, macular degeneration 8.7%, and corneal opacities 8%. In a study performed in a tertiary hospital in Bangladesh conjunctivitis was seen in 21.94%, cataract in 9.2%, refractory error in 15.2%, headache in 11.09%, dacryocystitis in 6.51% and blepharitis in 3.2% a study performed in tertiary hospital in Bangladesh⁸

A clinic based survey of several rural eye clinics in Cambodia showed that cataract, refractive error, anterior segment diseases, glaucoma were the common diseases seen in the community⁹

In a study done in Ethiopia,¹⁰ trachoma was found to be the leading cause of ocular morbidity 33.7% followed by refractive error 6.3% and non-trachomatous conjunctivitis 5.9%.

In a study done in Nigeria, conjunctivitis was the most common ocular disease seen in 32.9%, followed by cataract 14.7%, ocular injuries 12.8% and refractive errors 9.9%¹¹

Conclusion

In our study, there was female preponderance and the patterns of ocular disease were refractive error, cataract, pterygium, chalazion/stye, ectropion/entropion, keratitis, dry eyes, and corneal opacities. The patient requiring surgery like cataract, uncontrolled glaucoma and those requiring further investigations and specific treatment like severe diabetic retinopathy, retinal detachment were referred to higher centers.

This type of study is helpful to have idea about the epidemiology of any type of diseases in area which is helpful in planning & management. Early detection of diseases such as cataract & glaucoma in this population will reduce the burden of blindness.

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