

A pattern of ocular morbidity of patients attending a clinic in Western Nepal

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ABSTRACT

INTRODUCTION: 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.

MATERIALS AND METHODS: A retrospective study was done by reviewing the case records of all patients attending the eye clinic at Waling from August 2010 to August 2011.

RESULTS: The study included 915 patients, 617 were females (67.5%), and 298 were males (32.5%). 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%.

CONCLUSIONS: The study gives a picture and patterns of ocular disease in Western Nepal which will be helpful in planning & management of ocular health programmes in Nepal.

KEYWORDS: Ocular diseases, Morbidities, Western Nepal

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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 Nepal¹.

The important causes of blindness are cataract, followed by glaucoma and age-related macular degeneration. Pattern of blindness and visual impairment varies with age. According to Nepal blindness survey, prevalence of blindness is 0.8% and cataract is the most common cause of blindness followed by trachoma.¹ Cataract is the most common cause of preventable blindness.

Not many studies have been done in Nepal regarding ocular morbidity. A hospital based study done in BPKIHS, showed cataract as the most common eye disease followed by refractive error, conjunctival disease, and glaucoma.² Similar hospital based study done in Nepal Medical College, showed cataract, corneal diseases trauma and posterior segment disease as common ocular morbidities.³ Another study done in a satellite clinic in Bhaktapur, Nepal showed refractive errors as the most common ocular morbidity.⁴ The main objective of the study was to find out the current pattern of ocular morbidity in Western Nepal.

MATERIALS AND METHODS

This was a retrospective study conducted in all patients who attended the eye clinic at Waling from August 2010 to August 2011. The patient data were collected from the OPD register at the clinic. A total of 915 patients attended the eye clinic, which constituted the samples for the study.

Though our study was done in a private clinic, complete ophthalmological evaluation was done compared to other studies where slit lamp examination was not done to all patients.^{4,5} 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

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 Statistical package for Social Science version 16 (SPSS v 16).

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 (Table 1). 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%) (Table 2). 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%). 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.

Table-1. Age and sex distribution of patients

Age (years)	Male	Female
	n (%)	n (%)
≤10	46 (5.0)	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)
≥60	44 (4.8)	75 (8.2)
Total	298 (32.5)	617 (67.5)

DISCUSSION

The study shows that females (67.5%) had more eye problems than males (32.5%). This could be due to easy access of the clinic which enables them to seek medical help without being dependent on their

Table 2. Pattern of ocular disease

Diseases	n (%)
Refractive errors	245 (26.8)
Strabismus	8 (0.9)
Entropion/Ectropion	36 (3.9)
Stye/Chalazion	37 (4.0)
Conjunctivitis	184 (20.6)
Pterygium/pinguecula	55 (6.0)
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 and glaucoma suspect	15 (1.6)
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)

spouses or family members. Similar results showing a female preponderance was seen in the National Blindness Survey,¹ which have showed that in the rural areas there was easy access to eye care services. Female preponderance was also seen in Gandaki Zone.⁶ Similar results were obtained in Lumbini Zone and Chetwan district of Nepal where women constituted 52% and 53% of the total enumerated and examined population, respectively.⁷ This is different from most hospital based studies where there is a male preponderance.⁸⁻¹⁰

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 Bhaktapur 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%).⁴ Similar results were also seen in a hospital based study done at Shree Birendra Hospital,⁸ where in all age group-except above 60 years-the most common ocular disease was conjunctival & scleral disorders (23.7%) followed by refractive error (18.8%). In age group above 60

common disease (66.0%) followed by conjunctiva & scleral problem (10.4%) and refractive error (5.4%).

In a study performed in Gandaki Zone,⁶ 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 21.9%, cataract in 9.2%, refractory error in 15.2%, headache in 11.1%, dacryocystitis in 6.5% and blepharitis in 3.2%.⁵ 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 community.¹¹

In a study done in Ethiopia, 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%).¹² Similarly, 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%).¹³

CONCLUSIONS

In our study, females suffered from eye morbidities more than males. The most common ocular morbidity was refractive errors. Other morbidities found were cataract, pterygium, chalazion/stye, ectropion/entropion, keratitis, dry eyes and corneal opacities. The has given insight to understand the epidemiology of ocular diseases which will be helpful in planning & management. Early detection of the diseases such as cataract & glaucoma in this population will reduce the burden of blindness in Western, Nepal.

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