

PATTERN OF BLINDNESS IN MECCHI - A HOSPITAL BASED STUDY IN MECCHI EYE CARE CENTRE

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ABSTRACT :

This one year retrospective study was carried out after the completion of one year of this newly established centre. This study was done to know the pattern of blindness in this region so that we can plan our future strategies to tackle blindness effectively in this region. According to this study Anterior segment disorders were the main causes responsible for blindness. Among them cataract (49.41%) is the number one cause followed by Aphakia (11.86%). Corneal lesions were third common with the prevalence of 9.33% among blindness. Posterior segment disorders were responsible for the loss of vision in 7.39% and glaucoma was responsible for blindness in 6.09%. Cataract, aphakia and Refractive error were the common causes of curable blindness whereas corneal lesions, Posterior segment lesions and glaucoma were three common causes of incurable blindness. More male patients presented to the hospital with blindness (Curable blindness M:F=1:0.94, Incurable blindness, M:F=1:0.80). This study emphasizes the need for strategies to deal with blindness due to cataract, corneal lesions, posterior segment disorders and glaucoma in this region. By tackling these lesions, both curable and incurable blindness can be decreased in this region.

Key words : blindness, curable blindness, Incurable blindness.

INTRODUCTION :

Mechi Eye Care Centre was established on 1 December 1996. It is providing OPD service, indoor service and Operation facilities to the

patients since that period. It is providing services mainly to the people of Mechi zone.

People from other zones as well as from India are also coming to the centre for eye checkup. For the people of rural areas of

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Jhapa district we conduct Screening eye camps and for the people of Ilam and Panchthar district we conduct surgical eye camps. Nepal Blindness Survey¹, 1981 revealed that prevalence of blindness in Nepal to be 0.84%. The rate of blindness increased from 0.01 percent in preschool children to 8.58 percent in people over the age of 60. The prevalence of blindness was much higher in women (0.9%) compared to men (0.68%). Nearly 91.7% blind live in the rural areas of Nepal. The prevalence of blindness was significantly higher in terai (52.2%) compared to 40.5% in the hills, 3.2% in the valley and 4.1% in the mountains. the zones with the highest prevalence of blindness were Seti (1.24%), Karnali (1.3%) and Narayani (1.0%) whereas in Mechi the prevalence was 0.64%.

In this study presenting vision of less than 3/60 was taken as blind. If the patients had been using glasses then their visual acuity with and without glass was taken. If the visual acuity was less than 3/60 with or without glasses then patient was diagnosed as blind. Main aim of this retrospective study is to know the gravity of problem with which people were presenting to the hospital as blind patient. Necessity of this study was to know about the type of curable and incurable blindness, so that effective practical measures could be taken in future to cure the curable blindness and avoid the avoidable causes of blindness. In some diseases where blindness cannot be avoided, low visual aids or referring the patient to blind school can be done to help the people suffering from incurable blindness.

MATERIALS AND METHODS :

Blind patients were selected from the OPD register and the detail about them was found out from the patient register of the registration counter. Presenting visual acuity of less than 3/60 was taken as the blind. If the patient had been using glasses then their best corrected visual acuity with

their glasses was taken. After visual acuity examination all blind patients were examined by the Ophthalmic assistants and the Ophthalmologist. All cases where the diagnosis for the cause of blindness was in doubt, were examined by the Ophthalmologist. Cause of blindness was registered in the OPD register.

The main cause responsible for diminution of vision was taken into consideration as the primary cause.

RESULTS :

Table 1

Causes of blindness		
Disease	No.	%
Cataract	381	49.41
Aphakia	92	11.86
Corneal lesions	72	9.33
Posterior segment disorder	57	7.39
Glaucoma	47	6.09
Phthisis bulbi	30	3.81
Refractive error	21	2.72
Xerophthalmia	16	2.07
Uveal disorders	15	1.94
Trauma	11	1.42
Diagnosis not established	15	1.94
Staphyloma	5	0.51
Absolute eye	4	0.51
Others	5	0.64
	771	100
%	100	

In this one year period seven hundred and seventy-one patients were diagnosed as blind. Cataract was the commonest cause of blindness. Aphakia was the second common cause of blindness. High refractive error was responsible for blindness in 2.72 percent of the cases. In fifteen case diagnosis could not be established and they were referred to other centres.

Table 2
Distribution of Curable Blindness

Curable blindness				
Disease	Unilateral	Bilateral	Total	Percent
Cataract	257	124	381	76.5
Aphakia	34	54	88	17.67
Refractive error	0	21	21	4.21
Others	4	1	5	1
Uveitis	2	1	3	0.6
	297	201	498	100
%	59.63	40.37	498	100

Cataract was the commonest cause of blindness in both unilateral and bilateral blindness. aphakia was the next common cause of blindness. High refractive error was the third commonest cause of curable blindness.

Table 3
Distribution of Incurable blindness

Incurable blindness				
Disease	Unilateral	Bilateral	Total	Percent
Corneal Lesions	66	6	72	26.37
Posterior Segment disorder	46	11	57	20.87
Glaucoma	39	8	47	17.21
Phthisis bulbi	28	2	30	10.98
Vitamin A deficiency disorder	13	3	16	5.86
Uveal disorders	11	1	12	4.39
Trauma	11	0	11	4.02
Staphyloma	3	2	5	1.83
Absolute eye	4	0	4	1.46
Aphakia	2	2	4	1.46
Diagnosis not mentioned	13	2	15	5.49
	236	37	273	100
%	86.44	13.55	100	

Incurable blindness was predominantly present as unilateral blindness. Corneal disorders, posterior segment lesions and glaucoma were the three commonest causes of the incurable blindness being responsible for sixty-five percent of the incurable blindness.

Table 4
Age distribution of curable blindness

Age	Unilateral	Bilateral	Total	Percent
0-10	2	4	6	1.23
11-20	17	10	27	5.54
21-30	13	12	25	5.13
31-40	11	16	27	5.54
41-50	21	13	34	6.98
51-60	44	46	90	18.48
61-70	80	76	156	32.03
71-80	51	49	100	20.53
81-90	10	11	21	4.31
>91	1	0	1	0.2
	250	237	487	100
%	51.33	48.66	100	

Blindness was more common in the population above forty years of age. In those less than forty it was seventeen and half percent whereas in the population above forty years of age it was nearly eighty-two and half percentage. Cataract was mainly responsible for blindness in older age.

Table 5
Age distribution of Incurable blindness

Age	Unilateral	Bilateral	Total	Percent
0-10	4	0	4	1.4
11-20	12	11	23	8.09
21-30	19	17	36	12.67
31-40	11	15	26	9.15
41-50	25	15	40	14.08
51-60	31	22	53	18.66
61-70	27	29	56	19.71
71-80	19	16	35	12.67
81-90	18	2	20	7.04
>91	0	0	0	0
	157	127	284	100
%	55.28	44.71	100	

Nearly fifty-one percent of the blindness was found in less than forty years of age whereas in above forty it was about sixty-nine percent. About fifteen percent of incurable bilateral blindness was present in the population less than forty years of age.

Table 6
Sexwise distribution of blindness

	Curable	Incurable	Total	Percent
Male	250	157	407	52.78
Female	237	127	364	47.22
Total	487	284	771	100
%	63.16	36.83	100	

Curable blindness was the major cause of blindness in both male and female being responsible for blindness in sixty-three percent of the cases. Both incurable and curable blindness was almost equally distributed in the male and female population.

DISCUSSION AND CONCLUSION :

Though this study is a hospital based study even then it reflects the gravity of the problem with which people are coming to this centre from Mechi zone. This study will help in the future planning of the hospital and will help other organizations to tackle with the problem of blindness in the Mechi zone. According to this study even today despite all our best efforts to tackle blindness due to cataract, it is still number one problem of blindness in this region. Second common cause with which people presented to our centre was Aphakia. Most of the patients had either lost their glasses or the glasses were very badly scratched. So this study emphasizes that to cure blindness due to cataract, surgery should be done with the implementation of Intraocular lens. Corneal lesions were next common cause of

blindness. Blindness due to corneal lesions is preventable by mass education of the public regarding corneal injury and the timely treatment with antibiotic eye drops and ointment and avoiding injudicious use of steroid eye drops. This also emphasizes the need for more corneal transplantation surgery in future. Posterior segment disorders and glaucoma were other important causes of blindness. Blindness due to glaucoma can be avoided by timely diagnosis and referral to the proper centres where retinal surgeries and laser therapy can be provided in time. Refractive error, uveal disorders and xerophthalmia were other common causes of blindness that reflects that these diseases could be cured by proper health education and management in time.

Though blindness was equally prevalent in both male and female but still comparing to curable blindness, incurable blindness was more prevalent in the population less than forty years of age. This emphasizes the need of proper and regular eye checkup in school and colleges to tackle the incurable blindness in the younger population. This can be achieved by giving training to school teachers and conducting school screening programmes.

REFERENCES :

1. Girija E. Brilliant: The Epidemiology of Blindness in Nepal, Report of the 1981 Nepal Blindness Survey. Visual Impairment and Blindness, Page 115-116.