Ophthalmological Disease Profile in Out Patient Department of 250 Bedded District Hospital, Kishoreganj

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Pattern of eye diseases and nature of blindness varies in different cast, communities and countries. A study of the pattern of ophthalmological diseases is very essential to know which condition causes ocular morbidity and which ones are responsible for blindness. This was a retrospective study including all the cases attended the department of ophthalmology in 250 Bed District Hospital, Kishoreganj. A total of 31,142 patients were seen during the study period. Among them male were 13,630 and female were 17,512 (male to female ratio is 1: 1.33) and total problems were 51,943. The largest number of cases were seen in lens related disease (28.5%) followed by refractive error (26.97%). Nature of eye diseases differ in different age group. In younger group refractive error and conjunctival and scleral disease were commonly seen whereas in elder group lens disorder was frequently seen. The number of blind patient was more in female than in male patients.

[SSNI Med Col J 2017 Jan; 2 (1):1-8]

Key words: Cataract, conjunctivitis, blindness

Introduction

Blindness is one of the serious tragedies for human being. The patterns of eye disease vary in different parts of Bangladesh. A study of profile of ocular disease is very important because no such analytical and descriptive study has been done in at 250 Bedded District Hospital, Kishoreganj. This study was done to find out the variation of diseases in eye department and to use these data for future planning.

Methods

This was a retrospective study and all the cases which were diagnosed in the department of Ophthalmology, 250 Bed District Hospital ,Kishoreganj from January 2014 to June 2016 were included. All the patients were seen by medical officer (eye) and consultant ophthalmologist see only referred cases. For each patients the distant and near vision was recorded using the Snellen or E chart or picture chart and near chart. Anterior segment was examined with Slit lamp. Posterior segment examination was done using direct ophthalmoscope, +78 diopter lens after dilation of pupil if needed. Vision is classified as follows; Normal vision 6/6-6/18, visual impairment: <6/18 - 6/60, severe visual impairment: <6/60 - 3/60 and Blind: <3/60. Data was tabulated and interpreted in terms of percentage using SPSS version. The ocular disease was divided into 11 groups (Table I).

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Table I: Division of ocular disease

Group	Description
Group I	No ocular problem
Group II(lid & adenexa)	Chalazion, stye, blepharitis, acute & chronic dacrocystitis, congenital nasolacrimal duct obstruction, ectropion, entropion, ptosis,trichiasis, districhiasis, wart, cyst, preseptal celulitis & lid oedema
Group III (conjunctiva & sclera)	conjunctivitis, trachoma, pinguecula, pterygium, episcleritis, scleritis, conjunctival haemorrhage, dry eye, cyst, naevus, melanoma
Group IV (cornea)	Keratitis, ulcer, opacity, dystrophy, degeneration, microcornea, bullus keratopathy, injury, penetrating keratoplasty
Group V (lens)	Cataract, aphakia, pseudophakia, subluxated lens, posterior capsular opacity
Group VI (uveal tract)	Uveitis, endophthalmitis, panophthalmitis
Group VII	Refractive error,presbyopia,amblyopia,headache etc.
Group VIII (posterior segment)	Retinopathies, macular disease, optic nerve lesion, vitreous lesion, retinal/choroidal detachment
Group IX	Primary and secondary glaucoma, glaucoma suspect
Group X	Neoplasm
Group XI	systemic disease affecting eye

Results

The total 31,142 patients were recorded during the study period. Some patients had single problem and some had more than one problem, so among 31,142 cases, there were 51,943 different problems. The youngest patient was of 1 day and eldest was of 90 years. Among 31,142 cases 43.77% (13,630) were male and 56.23% (17,512) were female with male female ratio 1: 1.33.

In age group 0-10 years conjunctival and scleral was the most common problem in 1,602 (37.7%) and second most common problem was refractive error 1,573 (37%). In this group 66% had normal vision, 12% had visual impairment, and 4.5% had severely visual impairment. In age group 11- 40 years most common disorder was refractive error 8001 (42.82%) and second most common problem was conjunctival and scleral disorder 5,140 (27.47%).

In age group 41- 60 yrs the most common disease was lens disorder 3,844(29.42%) followed by refractive error 2,843(21.76%). In age group >60 years the maximum number of patients were lens disorder 10,614 (63.68%), 2nd most disease was refractive error 1,590 (9.54%) followed by conjunctival disease 1332(7.48%).

Table II: Diagnosis and age group

	≤10 Years	11- 40yrs	41- 60 Years	>60 Years	Total
Group	112(2.63%)	556(2.97%)	140(1.07%)	52(.31%)	871(1.6%)
Group I	410(9.65%)	1451(7.76%)	600(4.6%)	414((2.48%)	2875(5.53)
Group II(lid & adenexa)					
Group III (conjunctiva & sclera)	1602(37.7%)	5140(27.47%)	2005(15.35%)	1240(7.48%)	9987(19.23%)
Group IV (cornea)	199(4.45%)	1570(8.4%)	625(4.7%)	302(2.4%)	2782(5.35%)
Group V (lens)	25(0.58%)	320(1.7%)	3844(29.42%)	10614(63.68%)	14803(28.5%)
Group VI (uveal tract)	15(0.35%)	140(0.74%)	65(0.5%)	35(0.21%)	255(0.5%)
Group VII	1573(37%)	8001(42.82%)	2843(21.76%)	1590(9.54%)	14007(26.97%)
Group VIII (posterior segment)	25(0.58%)	487((2.07%)	610(3.13%)	690(4.14%)	1813(3.49%)
Group IX	10(0.56%)	415(4.36%)	700(6.89%)	550(3.9%)	1675(3.22%)
Group X	13(0.3%)	25(0.13%)	18(0.13)	00	56(0.1%)
Group XI	160(3.76%)	870(4.67%)	1012(7.74%)	885(5.3%)	2927(5.64%)
Total (%)	4248(8.1%)	18675(35.96%)	13062(25.15%)	16568(31.9%)	51943(100%)

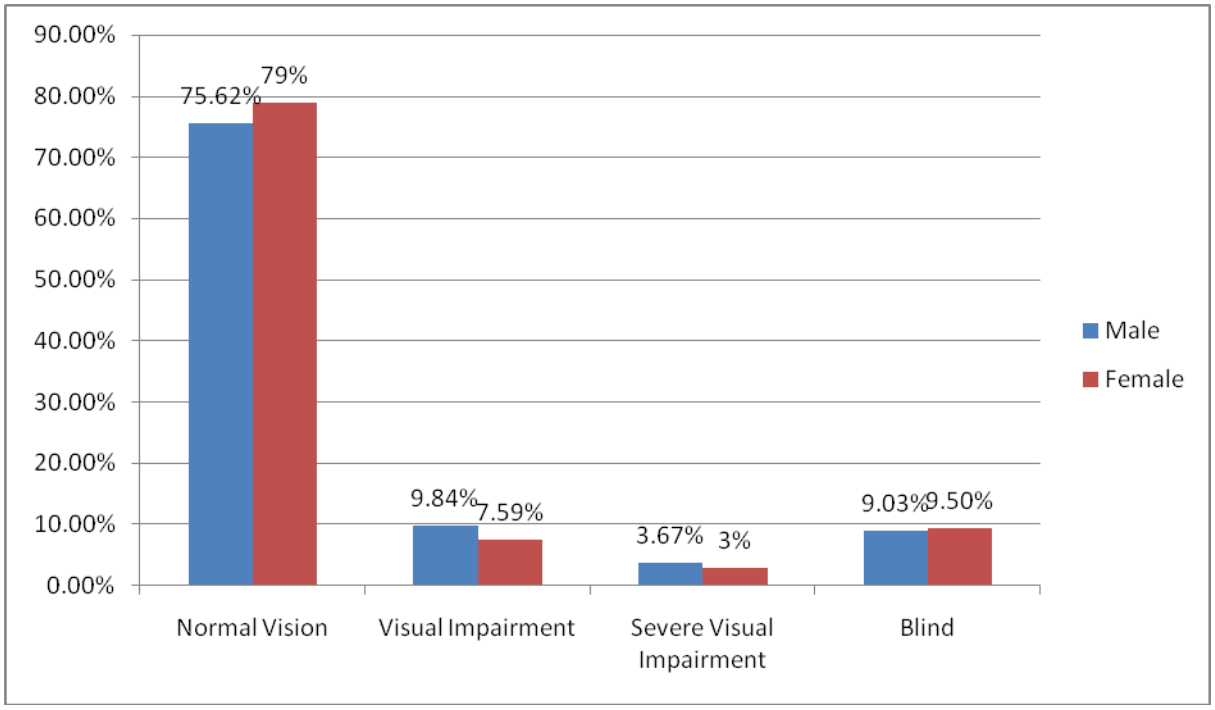

Figure 1. Sex and Visual acuity of patients

43.77% patients were males and 56.23 % were females. Among male patients, 1,152 (9.03%) were blind, 425 (3.67%) had SVI, 1,300 (9.84%) had VI and 10,503 (75.62%) had normal vision. Similarly among female patients 1,664 (9.5 %) were blind, 525(3%) had SVI, 1,330(7.59%) had VI and 13,993 (79%) had normal vision. Thus this data showed there was a large number of blind patients in female than male.

Age and Visual acuity of patients in figures

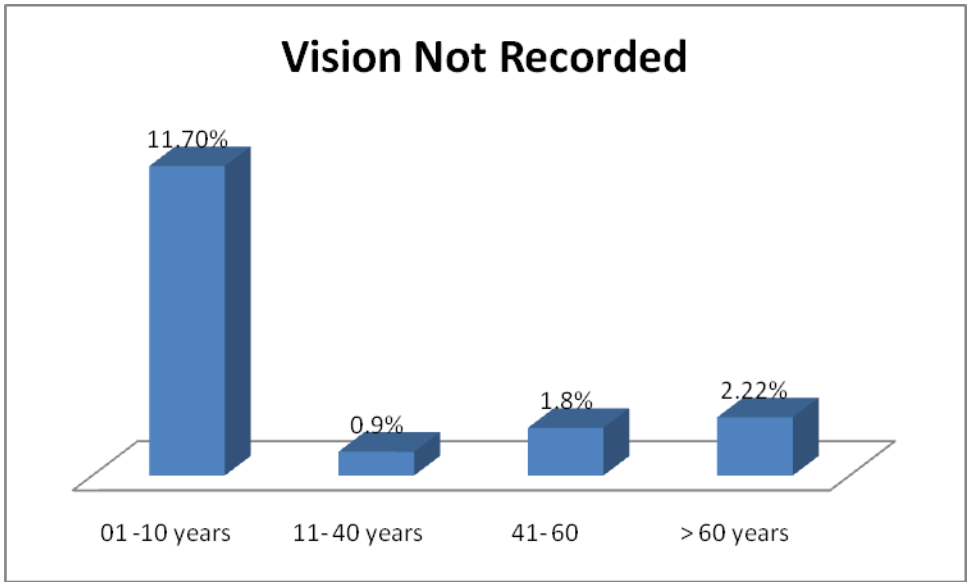

Figure 3. Vision not recorded

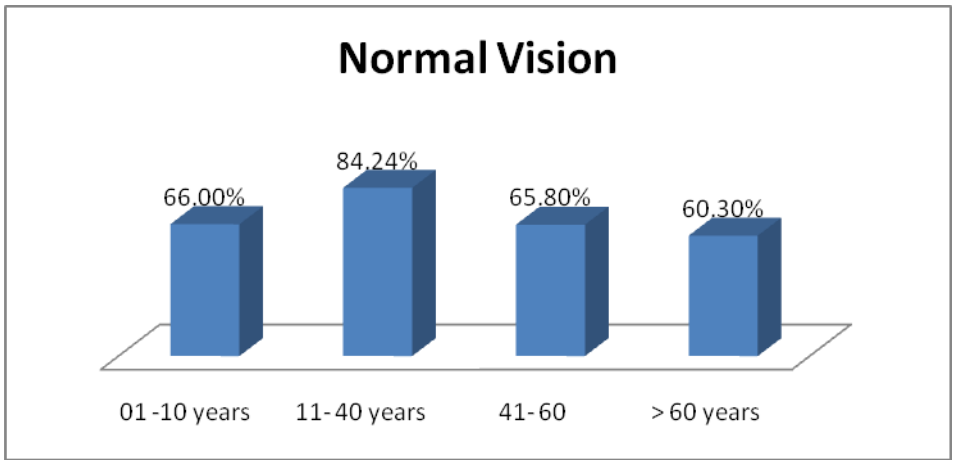

Figure 4. Normal Vision

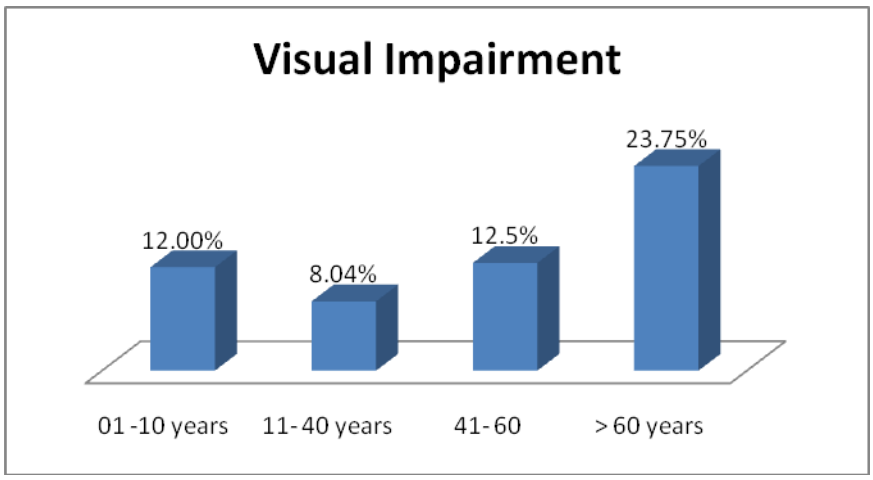

Figure 5. Visual Impairment

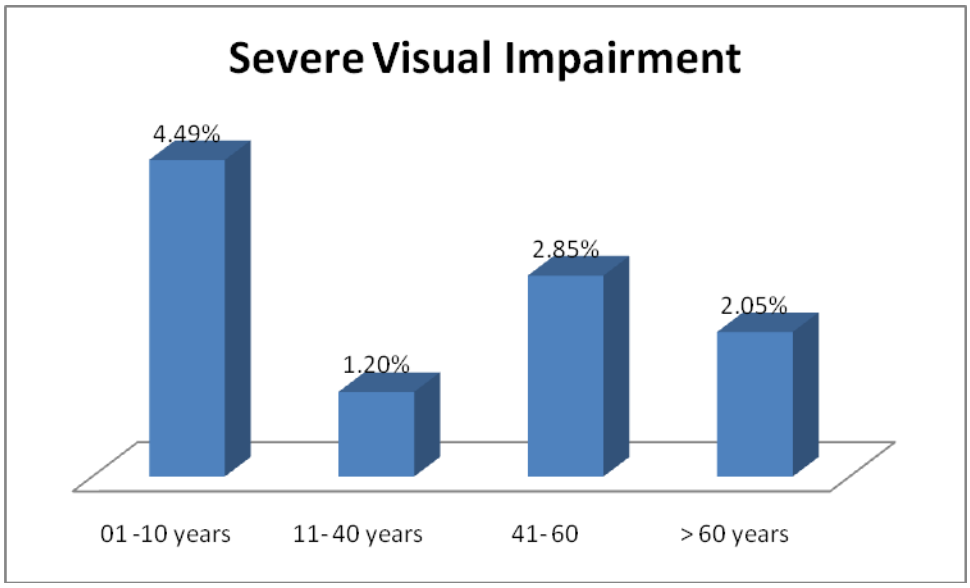

Figure 6. Severe visual impairment

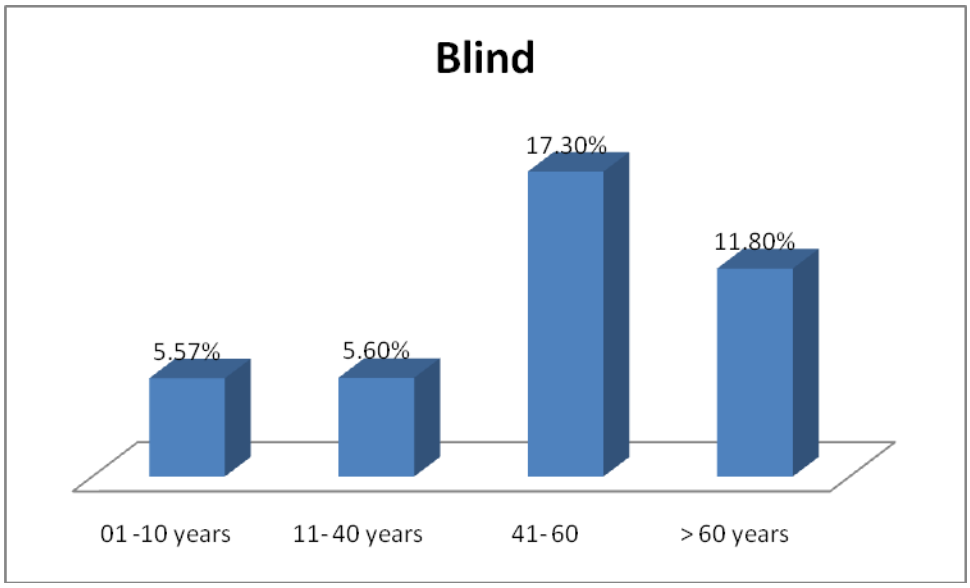

Figure 7. Number of blind patients

In 0 - 10 years, number of normal vision was1703(66%) and blind was 144 (5.57%). In 11 - 40 years, number of normal vision was10500(84.24%) and blind was 700 (5.60%). In 41- 60 years, number of normal vision was 5066 (65.80%) and blind was 1332 (13.3%). In >60 years, number o blind is 979 (11.8%).

Table III: Visual acuity and diagnosis

Disease	6/6-6/18 (normal)	<6/18-6/60 (VI)	<6/60-3/60 (SVI)	<3/60(Blind)	Total
Lid & adenexa	2268	140	200	224 (3.92%)	2875
Conjunctiva and sclera	7871	1250	179	113 (1.98))	9987
Corneal disease	1815	270	75	630 (11%)	2782
Lens disorder	3865	6350	1503	3815 (66.56%)	16224(48.58%)
Uveal disorder	10	65	35	56 (>(.99%)	166
Refractive error	10150	2377	148	302 (5.27%)	13911
Retinal disease	823	509	402	197 (3.45%)	1967
Glaucoma	1412	124	90	146 (2.55%)	1824
Others	1543	206	150	248 (4.34%)	2207
Total	29737	11291	2782	5731	51943

Among 51,943 cases total blind cases were 5731, the maximum number of blind cases 3815 was due to total lens and its disorder which was 7.34% of total cases attending in OPD and 66.56% of total blindness. Similarly 630 corneal cases were blind which 11% of total blindness . Blindness due to conjunctival and scleral disorders, posterior segments were 113 and 197, respectively. Vision could not be taken in 741 cases as either very small or uncooperative patients.

Discussion

Every 5 second one person goes blind. Every minute one child goes blind. About 45 million people are blind worldwide, 153 million

people are estimated to be virtually impaired from uncorrected refractive error of whom 8 million are blind, 314 million people are visually impaired from all cases.[1] More than 90% of the world visually impaired people live in developing countries. 75% of blindness are curable mostly due to cataract.[1] In Bangladesh over 750000 people blind. 650000 blind due to cataract and 6 million need vision correction by spectacle. Approximately 150000 irreversible blind which need to be rehabilitated. Approximately 40000 children are blind of which 12000 due to cataract and 80% of the above live in rural areas.[2] The control of blindness is one of the priority areas of the World Health Organization(WHO) "Vision 2020: the right to sight" program.

This is a global initiative which was launched by WHO in 1999 to eliminate avoidable blindness fromworld wide by the year of 2020.[3,4] In worldwide the major cause of blindness is due to cataract.[5-12] In Asian studies common causes of blindness are cataract and under corrected refractive error. Among the main causes of blindness are cataract, corneal disorder, refractive error, glaucoma, diabetic retinopathy and ARMD.[16] In our study the main cause of blindness was due to lens and its disorder which accounted 66.56% of whole blind case. Second most common cause of blindness due to corneal problem then the refractive error followed by lid and adenexa and others.

In our study the most frequent ocular disease was conjunctival and scleral disorder in all age group except eldest group followed by refractive error. In the youngest group (0-10 years) the most common problem is conjunctival and scleral disorder followed by refractive error which was similar with other studies.[12,13,15] In elder age group (41-60 years) lens disorder seen most commonly followed by refractive error, conjunctival and scleral diseases. The proportion of subject with normal vision was shown to decrease significantly with increasing age.

In eldest group (>60 years) lens disorder was seen number one problem, then refractive error, conjunctiva and sclera then posterior segment and glaucoma. The age specific blindness prevalence was found to be greater with increasing age.[8]

There was a significant difference in visual acuity between women and men. In my study the number of blind is more in female (9.5%) than male (7.59%). Similar findings were seen in other reports.[8,9,13,14]

Conclusion

The leading cause eye disease in this study was lens related disease, refractive error, conjunctival and scleral disease. The pattern of disease vary with age and sex and similar with other study.

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