

OCULAR PROBLEMS OF THE ELDERLY IN ONITSHA, NIGERIA

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ABSTRACT

Objectives: To determine the incidence and pattern of eye diseases among elderly patients at a tertiary eye hospital in Nigeria.

Design: Retrospective case series.

Main Outcome Measures: Incidence and causes of blindness and visual impairment.

Materials and Methods: Case files of all new patients aged 65 years and above seen at the Guinness Eye Center Onitsha between January 1998 and December 2000 were reviewed. Information on visual acuity, ocular diagnosis, age and sex were analyzed.

Results: 1328 elderly persons constituting 10.8% of all new patients were reviewed. The major eye diseases were cataract (51.6%); glaucoma (14.8%); retinal diseases (11.9%); refractive errors (11.5%) and conjunctival diseases (10.5%). The incidence of bilateral blindness was 17.5%; monocular blindness, 30.4%; and visual impairment in the better eye, 42.6%. The main causes of bilateral blindness were cataract (53.8%); glaucoma (21.1%); uncorrected aphakia (6.5%) and age-related macular degeneration (6.0%).

Conclusions: The incidence of blindness is higher than that obtained for all patients in a previous study. Most of the problems could be effectively treated in primary and secondary eye care levels; others including retinal disorders require laser photocoagulation, vitrectomy and low vision aids – facilities of which are scarce and expensive. While it is necessary for all centers to have these facilities, there is also a need to subsidize eye care services for elderly Nigerians.

KEY WORDS: Eye problems; blindness; visual impairment; elderly; Nigeria.

INTRODUCTION

Eye diseases are of public health importance in Nigeria. Both hospital-based¹⁻⁶ and community-based⁷⁻⁹ studies highlight the magnitude and causes of blindness and low vision in Nigeria. In analyzing the problems, the implications to the elderly population were mentioned.

In a hospital-based blindness and visual impairment study in Nnewi³, it was reported that persons aged more than 50 years constituted 65% of patients with low vision. Abiose⁵, while analyzing the problems of cataract surgery at the Lagos University Teaching Hospital, reported that the peak incidence for senile cataract was the 51 – 70 year age bracket. Similar observations had been made in earlier studies by Olurin¹ and Ayanru². At the Nnamdi Azikiwe University Teaching Hospital, Nnewi, 45.7% of patients with ophthalmic diseases requiring surgery were aged 60 years and above⁵.

However, only few studies in Nigeria focused primarily on the elderly⁹. In rural Anambra State, 8.6% of persons aged 50 years and above were reported to have bilateral blindness⁹. In rural India, the prevalence of presenting and best corrected vi-

sual acuity worse than 6/60 in persons aged 50 and above was 11.9% and 6.1% respectively¹⁰. These figures differed from the blindness prevalence of 1.4% in a similar population in Southern Australia¹¹.

The elderly is usually susceptible to degenerative and other chronic diseases, many of which affect the eye. Thus the care of the elderly necessarily involves visual rehabilitation. To effectively plan and implement such eye care programme for elderly Nigerians, information on the magnitude and pattern of their ophthalmic problems is important.

This article reports the hospital incidence and pattern of eye diseases among patients aged 65 and above, seen over a 3-year period at the Guinness Eye Center Onitsha, Anambra State, Nigeria.

MATERIALS AND METHODS

This is a retrospective study. Outpatient records of all new patients aged 65 years and above seen at the Guinness Eye Center Onitsha between 01 January 1998 and 31 December 2000 were reviewed. Information on age, sex, visual acuity and ocular diagnosis were abstracted into a standard proforma and analyzed. In accordance with the World Health Organization criteria, blindness was regarded as visual acuity less than 3/60 while visual

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acuity less than 6/18 but greater than or equal to 3/60 defined visual impairment.

Where the causes of blindness were different in the two eyes of a patient, the cause in the last blinded eye was taken. In eyes with more than one pathological condition, the most likely cause of visual loss was taken.

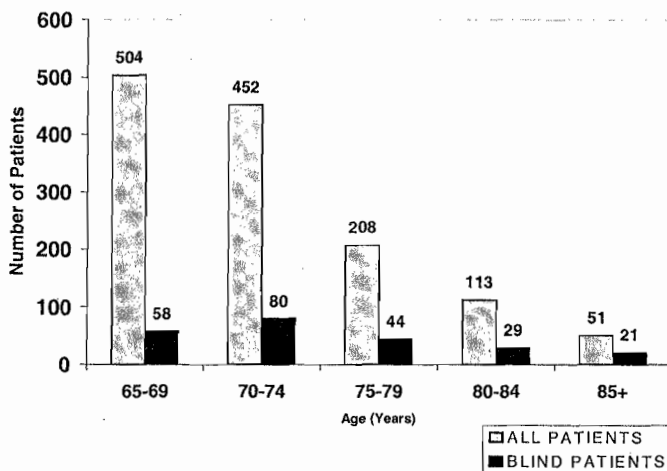
RESULTS

A total of 12,245 new ophthalmic patients were seen during the 3-year study period. Of these, 1328 (10.8%) were aged 65 years and above. There were 661 male and 667 female patients; M:F = 1:1. The age range was 65 – 102 years with the 65 – 74 year age bracket forming 72% of the patients. Figure 1 shows the age distribution of all the elderly patients versus that of the bilaterally blind patients.

Bilateral blindness was present in 232 patients (115 males; 117 females), thus giving a hospital incidence of 17.5%; 404 (30.4%) had monocular blindness and 566 (42.6%) had visual impairment in the better eye. Up to 59.5% of the bilaterally blind were aged 65 – 74 years.

As shown in Table 1, the common eye diseases were cataract, primary open angle glaucoma, age-related macular degeneration (ARMD), refractive errors and conjunctival diseases. Table 2 shows the causes of bilateral and unioocular blindness. In each category, cataract including uncorrected aphakia, glaucoma and ARMD were the 3 most important blinding diseases, with cataract constituting more than 50% of the cases.

Figure 1: Age Distribution-All Patients Versus the Blind Patients



DISCUSSION

The results of this study show that the major ocular problems of elderly patients seen in our hospital were cataract, glaucoma, ARMD, refractive errors and conjunctival diseases. Cataract, glaucoma and ARMD were also the commonest causes of bilateral blindness. A previous hospital-based study in Nnewi had documented cataract, glaucoma and ARMD as the most important causes of blindness³. Similar findings had been documented in other parts of Nigeria with a few variations. In Benin-City², uveitis was found to be a very important cause of blindness.

Table 1: Clinical diagnosis of the ocular problems

Disease	Subtotal	Total Number	% *
Lens diseases		686	51.7
Cataract	666		
Aphakia	20		
Glaucomas		197	14.8
POAG	175		
PACG	7		
Secondary	10		
Neovascular	5		
Retinal diseases		158	11.9
ARMD	101		
Diabetic retinopathy	22		
Retinal vein occlusion	12		
Retinal detachment	6		
Hypertensive retinopathy	6		
Posterior vitreous detachment	4		
Asteroid hyalosis	3		
Macular hole	3		
Retinitis pigmentosa	2		
Ocular albinism	1		
Refractive errors / presbyopia		153	11.5
Conjunctival diseases		140	10.5
Allergic conjunctivitis	70		
Pterygium	59		
Infective conjunctivitis	12		
Corneal diseases		56	4.2
Leukoma	27		
Bacterial corneal ulcer	27		
Herpes simplex keratitis	2		
Optic atrophy		21	1.6
Uveitis		19	1.4
Ocular trauma		18	1.3
Blunt	16		
Penetrating	2		
Severe ocular infections		10	0.8
Panophthalmitis	9		
Herpes zoster ophthalmicus	1		
Lid disorders		7	0.5
Ptosis	3		
Entropion / trichiasis	2		
Ectropion	1		
Lagophthalmos	1		
Strabismus		2	0.2

*Percentage based on 1328 patients

POAG = Primary open angle glaucoma

PACG = Primary angle closure glaucoma

ARMD = Age-related macular degeneration

Table 2: Causes of blindness

Disease	Bilateral blindness	Unilateral blindness
	No. (%)	No. (%)
Cataract	125 (53.8)	203 (50.3)
Glaucoma	49 (21.1)	76 (18.8)
Uncorrected Aphakia	15 (6.5)	5 (1.5)
ARMD	14 (6.0)	49 (12.1)
Corneal ulcer	11 (4.7)	12 (3.0)
Diabetic retinopathy	5 (2.2)	8 (2.0)
Optic atrophy	5 (2.2)	- -
Uveitis	2 (0.9)	15 (3.7)
Retinal vein occlusion	2 (0.9)	7 (1.7)
Leukoma	- -	10 (2.5)
Panophthalmitis	- -	9 (2.2)
Retinal detachment	- -	6 (1.5)
Entropion / Trichiasis	- -	2 (0.5)
Ocular trauma	- -	2 (0.5)
Others (retinitis pigmentosa, ocular albinism, etc.)	4 (1.7)	- -
Total	232 (100.0)	404 (100.0)

In the present study, trauma as a cause of ocular morbidity was low, thus contrasting with the findings in an earlier study of all hospital eye patients where trauma was the third commonest cause of unilateral blindness³. This is to be expected since the older population is less likely to engage in high-risk activities that predispose to ocular trauma. Ocular trauma was recorded mainly on patients aged 40 years and below in Nnewi³. Apte and colleagues¹², in a hospital-based blindness study in Dallas, USA, found that compared to the older population, ocular trauma was the leading cause of visual loss in patients younger than 40 years.

The incidence of blindness, 17.5%, in the present study is higher than the 14% found in a previous study in the same environment³. Although that study involved all hospital eye patients, it nevertheless recorded a higher blindness rate with increasing age. Studies in Ibadan¹ and Benin-City² had also recorded increasing blindness in the older age group. In spite of being a hospital-based study with the problem of selection bias, the major eye diseases recorded in the present study are essentially identical to the main ocular problems in rural Anambra State⁹. The only difference is the preponderance of onchocerciasis-related eye diseases in endemic rural communities⁹.

Blindness and visual impairment lead to socio-economic set-back in both the individual and the society. Though classified as elderly, most people aged 65 – 74 years still engage in useful economic endeavours. Unfortunately, this group constituted 72 % of the patients and more than 60% of the bilaterally blind.

If improvement in the general health of Nigerians ensures longevity, then more people will expectedly develop degenerative and chronic diseases. In such situation, the magnitude of the ocular problems of the elderly will most likely increase. About 3 decades ago, retinal diseases including retinal vascular diseases were reported as being rare in Nigerians^{13,14}. However, just as documented in recent studies¹⁵, the present study found that retinal diseases are common and important causes of blindness in Nigerians.

Most of the causes of ocular morbidity and blindness in the present study are avoidable in the sense that technology now exists to prevent or manage them with improved prognosis. Simple eyeglasses and eye drops prescribed at the primary eye care level would completely solve the ocular problems of a quarter of the patients. Almost all the cases of cataract and glaucoma can be handled at the secondary health care level especially if facilities in these centers are upgraded to be capable of performing intraocular microsurgery, including trabeculectomy and lens implantation. With these in place, only few cases would need the super-specialist care of the tertiary ophthalmic facilities.

In conclusion, to ensure that no elderly Nigerian unnecessarily suffers from visual loss or becomes incapacitated by ocular disease, it is mandatory to re-train primary health care workers to become competent integrated eye care workers. It is mandatory also to equip the primary health care centers to be capable of rendering essential eye care. The secondary health care centers should be upgraded to at least perform the common eye surgeries. The tertiary centers should indeed remain the apex referral centers by providing them with modern treatment equipment including those for laser photocoagulation, vitrectomy and keratoplasty.

Finally to ensure a healthy productive nation, eye care services should be subsidized for all Nigerians. This subsidy is particularly advocated for elderly Nigerians (who are prone to age-related blinding diseases) in order to enable them maximize the opportunities provided by the available services.

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