



Visual Morbidities among Elderly Patients Presenting at a Primary Care Clinic in Nigeria

Morbidités visuelle chez des patients âgés d'une clinique de soins primaires au Nigeria

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ABSTRACT

BACKGROUND: Visual challenges compromise mobility, increase dependency on family members and constitute a major health problem mainly seen by the primary care physicians among the elderly. However, there is little information on the pattern of visual problems of elderly patients attending the primary care clinics in Nigeria.

OBJECTIVE: To describe the visual problems among elderly subjects in a hospital setting.

METHODS: Five hundred consecutive patients (311 females and 189 males) aged 60 years and above were interviewed using a structured questionnaire based on the World Organization of Family Doctors (Wonca) format between September 2004 and April 2005. The main outcome measurements were socio-demographic characteristics, visual acuity and ocular problems.

RESULTS: The main visual problems reported by the elderly were impaired vision 224 (44.8%) and abnormal sensations in the eyes 64 (12.8%). Cataract 198 (39.7%) was the commonest eye disorder diagnosed by the Family Physician, followed by pterygium 32 (6.4%). Assessment of binocular acuity revealed blindness in 109 (21.8%) and low-vision in 68 (13.6%). The prevalence of visual impairment increased significantly with age.

CONCLUSION: Visual impairment is a common problem of the elderly people in the hospital setting, with cataract being the main cause. Efforts should be made to detect these conditions early and institute treatment promptly. *WAJM* 2011; 30(2): 118–120.

Keywords: Visual impairment, elderly, Ibadan, Nigeria, Eye.

RÉSUMÉ

CONTEXTE: Les problèmes de vision compromettent la mobilité, accroissent la dépendance envers les membres de la famille et constituent un problème majeur de santé selon les médecins chargés des soins primaires chez les personnes âgées. Cependant, il ya peu d'informations sur la nature des problèmes visuels retrouvés chez les patients âgés au niveau des cliniques de soins primaires au Nigeria.

OBJECTIF: Décrire les problèmes visuels chez les sujets âgés en milieu hospitalier.

METHODES: Cinq cents patients (311 femmes et 189 hommes) âgés de 60 ans et plus ont été interrogés à l'aide d'un questionnaire structuré sur la base du format de l'Organisation mondiale des médecins de famille (Wonca) entre Septembre 2004 et avril 2005. Les mesures principales portaient sur les caractéristiques socio-démographiques, l'acuité visuelle et les problèmes oculaires.

RÉSULTATS: Les principaux problèmes visuels rapportés par les personnes âgées étaient à type de troubles de la vision chez 224 patients (soit 44,8%), de sensations anormales dans les yeux chez 64 patients (soit 12,8%). La cataracte retrouvée chez 198 patients (soit 39,7%) était le trouble oculaire le fréquent, suivi par le ptérygion retrouvé chez 32 patients (soit 6,4%). L'évaluation de l'acuité visuelle binoculaire a montré la cécité dans 109 cas (soit 21,8%) et une baisse de la vision dans 68 cas (soit 13,6%). La prévalence des troubles visuels augmente significativement avec l'âge.

CONCLUSION: les troubles visuels constituent un problème de santé fréquent chez les personnes âgées en milieu hospitalier. La cataracte est la principale cause. Des efforts devraient être déployés pour la détection précoce des troubles et l'instauration rapide d'un traitement. *WAJM* 2011; 30 (2): 118–120.

Mots-Cles: Troubles visuels, personnes âgées, Ibadan, Nigeria, yeux.

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Abbreviations: WONCA, World organization of Family Doctors.

INTRODUCTION

There are twenty-two million elderly people who are currently blind in the world.¹ Various studies have shown that the common causes of vision loss in elderly people are age-related macular degeneration (AMD), cataract, glaucoma, and diabetic retinopathy.^{1,2} In Nigeria, Fafowora *et al* found 37.0% of elderly people to be visually impaired (blindness and low vision). Among these elderly, cataract was the commonest visual problem, followed by AMD and glaucoma.³ Similar studies in Nigeria by Ogunniyi *et al* found cataract to be the commonest cause of visual impairment accounting for more than two-thirds of the visual problems in the elderly people studied in Ibadan.⁴ Another study in Nigeria reported the prevalence of cataract in the elderly to be 54.0%.⁵ In Botswana, Clausen *et al* found that 55.4% of the elderly in a village had visual impairment.⁶

Other visual problems of the elderly include conjunctivitis, pterygium, stye, and ocular trauma which has recently been highlighted as one of the major causes of visual morbidity in the elderly.⁷ Furthermore, the age distribution for the occurrence of serious ocular trauma is bimodal, with the maximum incidence in young adults and a second peak in the elderly, who have more than half a million blinding injuries annually.^{8,9} In virtually all studies, age had been found to be a major factor to developing visual impairment. In the United Kingdom the prevalence of visual impairment in an elderly population sample increased with age from 2.1% in the 55–64 years age group to 17.9% in the group aged 85 years and older.⁷

There is limited information about the pattern of visual morbidity among the increasing elderly population in Nigeria. These elderly people usually present first to the primary care clinics, where their visual problems could easily be recognized and prompt management carried out, including early referral to an ophthalmologist. Most of the studies cited on the visual problems of the elderly in Nigeria were community based and these do not reflect the visual morbidities seen in the hospital setting. Hence, hospital based data from primary care

settings are required for effective planning and management of visual problems of these rapidly growing elderly population.

SUBJECTS, MATERIALS, AND METHODS

This descriptive study was carried out in University College Hospital (UCH) in Ibadan, the capital city of Oyo state located in the southwestern area of Nigeria. Five hundred consecutive elderly patients aged 60 years and above presenting at the General Outpatient Department (G.O.P.D) between September 2004 and April 2005 were interviewed using a structured questionnaire; the International Classification of Primary Care Diseases second electronic version (ICPC-2E) that was developed by the World organization of Family Doctors (Wonca).⁶

The ICPC-2E consists of self reported health problems in 15 body domains including the Eye. The questionnaire sought information on the respondent's socio-demographic data and self-reported health problems which included the visual problems.

At presentation, all the patients who met the inclusion criteria were interviewed with the questionnaire and their visual acuity was measured with a Snellen's chart at a distance of 6 meters. The binocular vision was measured first, followed by vision in the right eye and then the left eye. We chose the binocular vision in this study to describe the level of vision that the elderly patients use in day-to-day life activities, including usual spectacle correction in those wearing them. The examination of the eye was done with a pen-touch and ophthalmoscope to make the diagnosis of some of the visual disorders.

Blindness was defined according to the World Health Organization (W.H.O) as vision in the better eye worse than 3/60, and low vision as vision in the better eye worse than 6/18.^{7,10} Some of the elderly patients were also referred to the Ophthalmology clinic within the facility for further diagnosis of their visual problems.

Ethical approval was obtained from the University College Hospital/ University of Ibadan institutional ethical

review board (UI/UCH IRB), and written informed consent was obtained from all participants.

Data Analysis

The statistical software SPSS^R 11 was used for data handling and analysis, and frequencies were generated. Chi-square statistics was used to assess association between categorical variable and student t- test to test association between continuous variables. P-value of significance was set at $p \leq 0.05$.

RESULTS

In all, 500 elderly subjects comprising 311 (62.2%) females and 189 (37.8%) males, with the female to male ratio of 1.7: 1 were studied. Their mean age was 67.8 ± 7.1 years (Min–Max 60–104 years). Of the patients interviewed, 254 (50.8%) of self-reported one to six different visual problems.

Table 1 depicts the self-reported visual problems of the elderly patients, 224 (44.8%) and 64 (12.8%) complained of impaired vision and abnormal sensations in the eyes respectively.

On examination, cataract 198 (39.7%) was the most prevalent visual problem

Table 1: Visual Symptoms in Elderly Nigerians

Symptom	Frequency N (%)
Impaired Vision	224 (44.8)
Abnormal sensations in the eyes	64 (12.8)
Excessive tearing	58 (11.6)
Eye pains	48 (9.6)
Redness of the eyes	6 (9.2)
Abnormal eye movements	7 (1.4)

Table 2: Frequency of Visual Diagnoses in Elderly Patients

Diagnosis	Frequency N (%)
Cataract	198 (39.7)
Pterygium	32 (6.4)
Refractive errors	23 (4.6)
Corneal opacities	10 (2.0)
Allergic conjunctivitis	6 (1.2)
Bacterial conjunctivitis	4 (0.8)
Stye	1 (0.2)

Table 3: Binocular Visual Acuity of Elderly Patients by Age Groups

Age group (Yrs)	Number (%)			Total
	Normal Vision	Low Vision	Blindness	
(N)	323 (64.6)	68 (13.6)	109 (21.8)	500 (100.0)
60–64	137 (77.8)	13 (7.4)	26 (14.8)	176 (53.2)
65–69	84 (66.7)	23 (18.3)	19 (15.0)	126 (25.2)
70–74	64 (56.6)	17 (15.1)	32 (28.3)	113 (22.6)
75–79	14 (35.0)	8 (20.0)	18 (45.0)	40 (8.0)
≥80	24 (53.3)	7 (15.6)	14 (31.1)	45 (9.0)

$$\chi^2 = 36.416 \quad df = 12 \quad p < 0.05$$

diagnosed in them, with the prevalence of pterygium and refractive error being 6.4% and 4.6% respectively (Table 2).

In the right eye 211 (42.1%) were visually impaired, while 241 (48.2%) had visual impairment in the left eye. Binocular acuity (both eyes) measurement showed that 177 (35.4%) had visual impairment (40.8% of the male and 33.0% of the female elderly); with no significant gender difference $\chi^2=2.912$; $df=2$, $p=0.233$. The prevalence of visual impairment increased significantly from 22.2% in the age group 60–64 years to 50.0% in the ages 85 years and above ($p < 0.05$) Table 3.

DISCUSSION

Visual problems constitute a major health problem affecting the elderly. They lower the quality of life of the elderly by causing visual disability, compromising mobility and increasing dependency on the family and other care-givers. In this study, more than a half of the elderly patients interviewed had visual problems, with the complaint of impaired vision constituting half of the self-reported visual problems. Cataract was the commonest visual problems of the elderly in this study similar to other studies among elderly Nigerians.^{3,4} Blindness had been recorded in more than one-fifth of elderly subjects, while low vision found in more than a tenth of them.^{2,3} A significant association between the prevalence of visual impairment and increasing age was found in this study. The finding of a high prevalence of visual

impairment of which cataract was the commonest cause is disturbing when one considers that cataract is a treatable condition, through simple and safe surgical procedures.

Elderly patients with visual impairment have reduced activities of daily living and as a result they depend on their family members for their day to day activities like walking around, climbing the stairs and dressing themselves. Many elderly subjects have been forced into early retirement from their professions, and this increases their dependency on others which often lead to elderly abuse. However, with simple and cheap interventions their dependence on other individuals can be minimized and their quality of life improved.

Conclusion

The burden of visual problems on the elderly is enormous, and more disturbing is the fact that most of the causes of these visual problems are easily preventable and/or treatable if detected early in the primary care setting which is the first-contact of the elderly patients. Thus, the role of the primary care physician in the management of the visual problem of the elderly cannot be overemphasized. Early detection and prompt management action of the visual problems in the elderly relieve the burden of dependency on the family, and can improve the daily activities of the elderly. Pertinent questions towards eliciting visual problems must be asked at every

contact with the elderly. Furthermore, there is a need for the Government to subsidize eye services for the elderly in order to mitigate the cost of treatment.

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