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Eye disease in Wesley Guild Hospital, Ilesa, Nigeria

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Summary

Eye disease constitutes an incapacitating condition with significant socioeconomic consequences. Regional differences occur in the pattern of presentation, which influence preventive strategies in order to achieve the goals of Vision 2020 global initiative. The purpose of the study is to determine the prevalence and causes of eye disease in Wesley Guild Hospital, Ilesa in order to provide a database for the planning of primary eye care delivery system. Medical records of new consecutive patients presenting in the eye clinic of Wesley Guild Hospital, Ilesa over a 5-year period (January 2000 - December 2004) were studied. The prevalence of eye disease was 2.3%. A total of 1717 patients had eye disorders. The mean age was 52.0 years \pm 2.4 s.d, with a female preponderance (Male: Female ratio 1:1.2). The leading diagnoses were cataract (26.0%), refractive error (18.5%), allergic conjunctivitis (12.4%) and glaucoma (10.9%). High volume cataract surgery, health education, early diagnosis and prompt management while incorporating primary eye care within the comprehensive health care system could reduce the impact of the preventable causes of blindness.

Keywords: Eye disease, hospital-based, Nigeria, blindness

Résumé

La maladie des yeux constitue une condition d'incapacité avec des conséquences socio-économiques. La différence régionale se présente dans le modèle de présentation, qui influence la stratégie préventive en vue d'atteindre le but de l'initiative globale VISION 2020. Le but de cette recherche est de déterminer la prévalence et les causes des maladies des yeux à l'hôpital de Wesley Guild, Ilesha en vue de fournir les données pour le planning du système de distribution des soins primaires

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des yeux. Les records médicaux des nouveaux patients consécutifs présentés dans la clinique des yeux de l'hôpital de Wesley Guild, Ilesha étaient étudiés dans une période de plus de 5 ans (Janvier 2000-Décembre 2004). Les résultats montrent que la prévalence du mal des yeux était de 2.3%. Un total de 1717 patients a eu un problème de yeux. L'âge moyen était 52.0 \pm 2.4 ans avec une prépondérance femelle : (Male : Ratio de femelle 1 :1.2). Le diagnostic principal était la cataracte (26.0%) l'erreur de cécité réfractive (18.5%), La conjunctivite allergique (12.4%) et glaucome (10.9%) ; En conclusion, le grand volume d'opération de cataracte, l'éducation de la santé, le diagnostic fait à temps et une rapide gestion pendant l'incorporation des soins primaire des yeux à l'intérieur du système de soins de santé compréhensif pouvait réduire l'impact des causes évitables de la cécité.

Introduction

Wesley Guild Hospital Ilesa (WGH) is a constituent of the Obafemi Awolowo University Teaching Hospitals Complex, a tertiary referral centre established to meet the health needs of Ilesa community in Osun State and its neighbouring states of Ondo, Ekiti and Kwara. The Eye Clinic was set up in 1999 as the need arose to take eye care closer to the people. This was in compliance with the aims of VISION 2020 - 'The right to sight' - by the provision of infrastructures and human resources for eliminating avoidable blindness by the year 2020 [1].

The spectrum of eye diseases shows a wide geographical variation and even in the same country, variations exist. In southwestern Nigeria, a teaching hospital based study showed that cataract, glaucoma and macular degeneration were common in patients who were bilaterally affected [2]. Adeoye's study in private hospital practice however revealed that the leading eye disorders were refractive error, allergic conjunctivitis, cataract, trauma and glaucoma in that order [3]. A community based study by Fafowora and Osuntokun [4] in Ibadan revealed that cataract, age-related macular degeneration (AMD) and glaucoma were the major causes of blindness and

low vision in the elderly population. However, in southern Togo [5], the main ocular diseases were cataract, glaucoma and corneal opacities, while bacterial conjunctivitis topped the list in Lesotho [6]. The pattern is different in developed countries. In a study of patients attending Orleans Regional hospital, a centre in France [7] it was shown that the leading causes of visual impairment were macular degeneration, diabetic retinopathy and cataract.

It has been reported that 90% of the world's blind reside in the developing countries and people living here are 10 times more likely to go blind than those in the developed countries [8]. This informed the decision to conduct a study in order to understand the pattern of ocular presentation in this part of Nigeria. Moreover, since the establishment of an Eye Unit in WGH in 2000, no similar study has been conducted.

The purposes of this study were (i) to determine the prevalence of eye disease in WGH; (ii) to identify the causes of ocular morbidity; and (iii) to provide a database for planning of primary eye care delivery system within the community and catchment areas of the hospital.

Materials and methods

This retrospective study covers a period of five years from January 2000 to December 2004. Charts of new patients presenting at the Eye clinic and General Outpatient clinic (GOP) of WGH, Ilesa were examined. Data on the age, sex and diagnoses of those attending the Eye clinic were analyzed by means of descriptive statistics, using statistical package for social sciences (SPSS) soft ware (version 11.0).

Table 1: Distribution of sex by age group

	Sex and Percentage of total No of patients		
	Male (%)	Female (%)	
Age 0-9	53 (46.5)	61 (53.5)	114 (6.6)
10-19	88 (43.3)	115 (56.7)	203 (11.8)
20-29	90 (45.0)	110 (55.0)	200 (11.6)
30-39	64 (49.2)	66 (50.8)	130 (7.6)
40-49	71 (39.7)	108 (60.3)	179 (10.4)
50-59	114 (49.6)	116 (50.5)	230 (13.4)
60-69	141 (43.9)	180 (56.1)	321 (18.7)
70-79	132 (55.5)	106 (44.5)	238 (13.9)
80+	44 (43.1)	58 (56.9)	102 (5.9)
Total	767 (46.4)	920 (53.6)	1717 (100.0)

Results

Out of 76,196 patients seen at the GOP in five years, 1717 (2.3%) were referred to the eye clinic. Of the 1717 patients studied, 797 (46.4%) were males and 920 (53.6%) were females, giving a male: female ratio of 1:1.2. The mean age was 52years \pm 2.39s.d. The peak age at presentation (18.7%) was found in the 7th decade (Table 1).

Table 2: Ocular diagnosis in 1717 patients

Diagnosis	No.	%
Cataract	446	26.0
Refractive error	317	18.5
Allergic conjunctivitis	213	12.4
Glaucoma	187	10.9
Corneal scar	98	5.7
Pterygium	98	5.7
Trauma	77	4.5
Uveitis	69	4.0
Retinal disorders (RD, CQ, retinopathy, DR, HR, RP)	64	3.7
Neuro ophthalmic disorders (Bells palsy, toxic optic neuropathy, papillitis, retrobulbar neuritis)	42	2.4
Lid disorders (chalazion, HZO, ptosis)	41	2.4
Aphakia	32	1.9
Infective conjunctivitis	27	1.6
Orbital disorders (lacrimal gland tumour, orbital cellulitis epihora)	24	1.4
Macular scar	24	1.4
Non-infective conjunctival disorders (granuloma, cyst, sub-conjunctival haemorrhage)	14	0.8
Pthisis bulbi	12	0.7
Strabismus	11	0.6
Onchocerciasis	10	0.6
Episcleritis	9	0.5
Vitreous opacity	6	0.3
Pinguecula	6	0.3
Congenital disorders (Albinism, essential iris atrophy)	5	0.3
Symblepharon	4	0.2
Microphthalmos	4	0.2
Pseudophakia	4	0.2
Trachoma	4	0.2
Dysthroid ophthalmopathy	4	0.2
Age-related macular degeneration (AMD)	4	0.2
Cortical blindness	3	0.2
Endophthalmitis	3	0.2
Panophthalmitis	3	0.2
Retinoblastoma	2	0.1
Staphyloma	2	0.1

The leading eye disorders were cataract (26.0%), refractive error (18.5%), allergic conjunctivitis (12.4%) and glaucoma (10.9%). Less common diseases were pterygium (5.7%), corneal scar (5.7%), staphyloma (0.1%), retinoblastoma (0.1%), age-related macula degeneration (0.2%), endophthalmitis and panophthalmitis (0.2%) each (Table 2).

Discussion

Eye disease is often incapacitating with resultant socioeconomic consequences.

The female preponderance in our study may be due to the fact that females are more conscious of their appearance and any condition that prevents the appreciation of this will be promptly tackled. The predominance of cataract (26%) in our series is similar to the works of Nwosu [3], Fafowora and Osuntokun [4] and Ogwurike and Pam [9] in Eastern, Southern and Northern parts of Nigeria respectively. Cataract was also found to be the commonest cause of visual morbidity in other developing countries [5,10]. This is contrary to the report from France where macular degeneration was the most common cause of visual impairment [7].

Refractive error (18.5%) was found to be second on the list, which correlates well with the studies of Adeoye (16.9%) [3] and Tebepah [11] where it featured as the commonest disorder. Its high occurrence in the teenage group may be explained by awareness because of the academic environment where the hospital is located.

Allergic conjunctivitis was found to be very common (12.4%) with a greater percentage in the 2nd decade. This is similar to the work of Adeoye (15.9%) [3] and Ogwurike and Pam (32.3%) [9] although their value included infective conjunctivitis. Glaucoma (10.9%) was high on the list and was found to be most frequent in the 60-69 years age group. It has been reported the second most prevalent cause of blindness worldwide after cataract and the World Health Organisation Programme for prevention of blindness estimates that 5 million people are blind due to glaucoma [12]. Patients presenting in the clinic within this age group should be routinely screened for glaucoma for early detection and management.

It can be seen from our study that corneal scar (5.7%) resulting from measles keratitis, trauma and corneal ulcer was relatively common; out of which the highest percentage occurred within 0-9 years age group. This can be prevented through health education, recognition and early referral of patients

with corneal ulcer together with enhanced immunization of babies against measles [13].

It is worthy of note that the incidence of onchocerciasis (0.6%) in this study was found to be very low in concordance with other studies done in Southern Nigeria [14,15]. Although Nigeria is believed to be the most endemic country in the world for onchocerciasis, the majority of cases are found in the Northern parts with prevalence rates varying from 3.2 to 9.6% [15, 16]

In conclusion, eye camps for cataract screening and surgery need to be organized by eye care providers to reduce the backlog of cataract. Subsidized cost of treatment of these eye conditions by Government and non-Government Organizations (NGO) will assist in achieving the goals of Vision 2020. Early detection of refractive errors through routine screening of school children will prevent avoidable blindness. Incorporation of primary eye care as an integral part of pre-existing comprehensive primary health care will allow for regular eye health education, early recognition, treatment and prompt referral of patients with blinding eye diseases.

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