

OPTOMETRIST'S PERSPECTIVE ON GLAUCOMA CARE

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INTRODUCTION

- Who is an Optometrist?
- An Optometrist is an independent primary health care provider who is trained to examine, diagnose, treat, and manage diseases and disorders of the visual system, the eye, and associated structures as well as diagnoses related systemic conditions.

INTRODUCTION

- The mission of the profession of optometry is to fulfil the vision and eye care needs of the public through clinical care, research, and education, all of which enhance the quality of life.
- What is glaucoma? Glaucoma is a group of ocular diseases associated with a progressive optic neuropathy that leads to a loss of visual function.

Epidemiology of glaucoma

- Globally, about 314 million people are visually impaired while 45 million of them are blind with 87% of the visually impaired living in the developing countries (WHO, 2000). By 2020, nearly 80 million persons worldwide will be affected with the disease and of these 74% will be open angle glaucoma (OAG) (Quigley et al, 2006).
- It is the second most common cause of blindness and the leading cause of irreversible blindness worldwide (WHO, 2004).

Epidemiology of glaucoma

- Primary open angle glaucoma (POAG) is the most common type of glaucoma in Africa. The Baltimore eye study [1991] found the prevalence of POAG in people of African descent to be four times greater than in Caucasians. Ntim-Amposah et al (2004) reported a POAG prevalence of 8.5% among adults aged 40 years and older in Ghana. Observations among West African ancestrally-related populations in the Caribbean also show a very high prevalence of POAG.

Epidemiology of glaucoma in Nigeria

- In Nigeria, majority of studies done have been limited to a particular community or a tertiary institution which makes it “impossible” to provide figures for incidence and prevalence of glaucoma in Nigeria as a whole.
- A study in Dambatta district in the north-western part of the country showed that glaucoma accounted for 15% of blindness and 7% of those visually impaired (Abdu L, 2002). Years before then, a survey team that screened 1563 people of Hausa/Fulani ethnic extraction discovered that 1.02% of those aged 45 years and above had glaucoma (Murdoch et al, 2001).

Epidemiology of glaucoma in Nigeria

- Similarly, a study conducted in the south-west zone showed glaucoma accounted for 11.1% of blindness (Adeoye A, 1996). Institution-based studies have also indicated the importance of glaucoma as a cause of blindness. A study of 1794 workers in Ibadan confirmed glaucoma in 2.7% of the study group (Agbeja-Baiyeroju et al, 2003). In Benin, 24.7% of 154 patients examined were blind from glaucoma based on visual acuity test, and the figure was higher when visual field criteria were used to define blindness (Omoti et al, 2006).

Epidemiology of glaucoma in Nigeria

- A study of 555 new patients confirmed unocular blindness from glaucoma in 6% (Dawodu et al, 2003). More recently, the Nigerian National Blindness and Visual impairment Survey has shown that the cause specific prevalence of blindness due to glaucoma was 0.7% second only to cataract with 1.8%, and glaucoma blindness covers all the six geopolitical zones of the country though slightly higher in the south eastern part of the country. Glaucoma was the second commonest cause of blindness accounting for 16.7% (Abdull et al, 2009).

Role of Optometrists in Glaucoma care

- Vision Screening exercises to promote early diagnosis of glaucoma. This aims to find people at risk of developing glaucoma. Open angle glaucoma is asymptomatic in its early stages and the use of screening methods for detecting early disease is of great importance. In Nigeria, study on the pattern of presentation of Open Angle Glaucoma revealed that the management of patients with OAG is always presented late and it has not improved over the last two and half decades (Omoti and Osahon, 2006).

Role of Optometrists in Glaucoma care

- Timely management and follow-up: Optometrists are properly trained to manage a wide array of ocular diseases, glaucoma inclusive. Vision loss from glaucoma is silent, slow, progressive, irreversible, but it is treatable (Robert, 2008) hence the need for early interventions. Management must be uniquely tailored to fit each individual patient as every patient presents to the clinic at a different stage of the disease, progress at different rates and react differently to IOP lowering medications.

Role of Optometrists in Glaucoma care

- Current therapy for glaucoma is directed at lowering intra ocular pressure though not just to reduce it to normal level but to a level at which damage to the optic nerve ceases (Hurvitz et al, 1991, Quigley, 1993). IOP reducing medications are classified into
 - Beta-blockers
 - Alpha-2 agonists
 - Prostaglandin analogues
 - Carbonic anhydrase inhibitors
 - Combined preparations
 - Osmotic agents

Role of Optometrists in Glaucoma care

- Proper counselling and patient education to make glaucoma patients aware of their conditions and ensure compliance to medications. Coordination of the patient's care, which is essential to increasing the probability of success, involves communication with the patient's family doctor, consultation with a glaucoma specialist as appropriate, patient education regarding the disease, proper patient instruction, and diligence to ensure maximum patient compliance with the therapeutic regimen.

Role of Optometrists in Glaucoma care

- Prompt referral for further testing and/or management: Optometrists are not shy to request for second opinions and/or further testing. Referral to an Ophthalmologist or glaucoma specialist is indicated when the patient's IOP is not responding to medical treatment or patient has been shown to be non-compliant with medications; also when patient presents at the clinic with an advanced stage of the disease and a more aggressive approach is required.

Role of Optometrists in Glaucoma care

- Rehabilitative care for those with moderate to severe visual loss. Patients with glaucoma may suffer permanent vision loss. In such cases, consultation with an optometrist who has advanced training or clinical experience in vision rehabilitation is advisable. To reduce the debilitating effects of vision loss from glaucoma, patients should be evaluated to determine their potential to benefit from comprehensive low vision rehabilitation, which includes the use of specialized optical devices and training.

Role of Optometrists in Glaucoma care

- Rehabilitative care is a component of eye care that we should be more proactive about; its goal is to reduce the effects of ocular morbidity and enhance the quality of life. In addition to optical intervention, the evaluation should include the need for non-optical devices, special lighting, posture aids, contrast enhancement, enlarged print, and non-visual methods or devices when appropriate to complement the optical aids prescribed

Role of Optometrists in Glaucoma care

- Public awareness: in the form of rallies, newspaper publications, documentaries, etc.
- Continuous education to keep abreast of new innovations in the diagnosis and management of glaucoma. New researches are looking in the direction of genetic testing and stem cell therapy.
- Support researches aimed at finding a cure to the scourge

Conclusion

- Glaucoma remains a cause of avoidable blindness in Nigeria. There is need for long-term strategy to identify patients early and institute prompt management. All eye care professionals must work hand in hand if we are to make progress in the fight against glaucoma and other debilitating eye diseases.
- In conclusion, a well-informed and properly educated patient makes a more compliant patient and we know that compliance is key in the management of glaucoma.

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