

Acceptability and barrier to consideration for trabeculectomy among glaucoma patients in a tertiary hospital in South-Western Nigeria

Abstract

Aim: To determine the acceptance rate and barrier to uptake of Trabeculectomy among glaucoma patients in our Hospital.

Method: All newly diagnosed cases of primary open angle Glaucoma patients seen from May to October 2018 at the glaucoma clinic of Ekiti State University Teaching Hospital were interviewed for the study using a semi-structured questionnaire designed for it.

The data obtained were coded and analyzed using Statistical Package for Social Sciences (SPSS) Version 15.

Result: One hundred and thirty-eight primary open angle glaucoma patients with age range 23 to 82years, mean of 58.2 SD±14.6 were analyzed for this study, they comprised of 71males and 67 females, m: f ratio 1.05:1. Twenty four (17.4%) accepted surgery as against 114 (82.6%) that rejected it, fear of going blind was the most common reason for rejection (82.5%), other reasons include seeing well and bad experience of some other patients that had surgery.

Conclusion: There is a low level of acceptance for Trabeculectomy in this study due mainly to fear of going blind. There is therefore the need for counselling of glaucoma patients on the benefit and safety of Trabeculectomy in order to reduce the magnitude of blindness from the disease.

Keywords: glaucoma, trabeculectomy, blindness

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Introduction

Glaucoma is a blinding disease in which there is optic neuropathy, visual field defects with or without raised intraocular pressure.¹ It is the second leading cause of blindness worldwide accounting for 8% of the estimated 39 million blind people in the world.¹ In Africa, it accounts for 15% of blindness and has the highest prevalence of blindness relative to other regions worldwide,² in Nigeria, it is also the second leading cause of blindness.^{3,4} The form of blindness that results from untreated glaucoma is irreversible; it is therefore beneficial to treat the disease before blindness sets in. The ultimate goal of treatment is to stop further nerve damage and prevent visual loss. At present the only modifiable risk factor is the intraocular pressure.⁵ Also studies^{6,7} have shown that the lower the intraocular pressure the lower the risk of optic nerve damage. Intraocular pressure can be reduced with the use of medication, by use of laser or surgically; one of the surgical methods of reducing the pressure is Trabeculectomy. The overall aim is to ensure that the pressure is sustained at normal level at all times and whatever level of vision is left will consequently be sustained.

Medical therapy is effective only when there is strict compliance which is difficult to achieve in a chronic disease like glaucoma whereby treatment is for life, some studies⁸⁻¹⁰ have affirmed that there is poor compliance to medication among glaucoma patients. Okeke et al.⁵ for instance reported that 50% of their patients were not adherent to their medication while Tamrat et al⁹ reported that 67.5% of their patients were not compliant to their medication. Some of the challenges reported by these authors⁸⁻¹⁰ for poor compliance include cost, non-availability of drugs, ignorance, poor memory and

low morale due to the belief that the medications were not effective since their vision did not improve with them. Also studies^{11,12} have shown that the effect of laser trabeculoplasty is often temporary with 5-10% escaping control per year, surgery therefore seems to be the best modality of treatment and has been recommended for the primary treatment for Glaucoma in Africa.¹³⁻¹⁵ Furthermore some Comparative studies^{16,17} on surgery versus medical therapy and laser have confirmed that surgery is superior to both in the long term control of intraocular pressure and in preserving vision and visual field stability. In spite of this, studies^{18,19} on the rate of Trabeculectomy for primary open angle Glaucoma in Nigeria is still low, some of the barriers reported by these authors^{18,19} include fear of going blind, cost and ignorance. There is still a dearth of literature on the acceptability and barrier to uptake of Trabeculectomy in Ekiti State where this study was conducted, this study therefore aims to determine the acceptance rate and barrier to its uptake and make appropriate recommendations.

Method

All newly diagnosed cases of primary open angle Glaucoma seen at the glaucoma clinic of Ekiti State University Teaching Hospital were interviewed for the study using a semi-structured questionnaire designed and pretested for it. The questionnaire was used to obtain relevant bio-data, gender, educational level and other relevant demographic data about the patient and the disease. Specific questions on whether patient was ready to accept Trabeculectomy as a primary modality of treatment for the disease and reasons stated for rejecting it were obtained from the patients.

The study period was for a period of six months from May to October 2018. The questionnaires were administered by two Consultants and two Resident doctors that conduct the Glaucoma clinic, the questionnaires were administered in English and Yoruba Language which are the dominant language in the environment.

Data analysis

The data obtained were analysed using Statistical Package for Social Sciences (SPSS) Version 15, The results were presented in form of tables and figures.

Ethical considerations

Approval for the study was obtained from the research and ethical committee of Ekiti State University Teaching Hospital (EKSUTH) Ado-Ekiti. Informed verbal consent was also obtained from all patients after due explanation to them.

Results

One hundred and thirty-eight primary open angle glaucoma patients were analyzed for this study, they comprised of 71 males (51.4%) and 67 females (48.6%) m: f ratio 1:05:1. Their age range was 23 to 82 years with a mean of 58.2 SD±14.6, the greatest proportion (64.5%) were aged 60 years and above while the least proportion

were aged 20–29years (4.3%) Table 1. Thirty (21.7%) of them were illiterates while 108 (78.3%) had some level of education. Regarding their occupation, majority of them were artisans & traders (28.9%) while students were the least (4.4%) as depicted in Table 2. Twenty four (17.4%) accepted surgery as against 114 (82.6%) that rejected it (Figure 1), The most common reason for non acceptance of surgery was mainly fear of going blind in 94 patients (82.5%). Other reasons were been able to see well in 12patients (10.5%) and discouraging information from some other patients that had Trabeculectomy by 8patients (7.0%) (Figure 2). Of the patients that accepted surgery, 70.8% of them were blind with a visual acuity of $\leq 3/60$ and central visual field of less than 10° from fixation.

Table 1 Age group of 138 patients with glaucoma

Age group	No	%
20 – 29	6	4.3
30 – 39	10	7.2
40 – 49	6	4.3
50 – 59	27	19.6
60 and above	89	64.5
Total	138	100

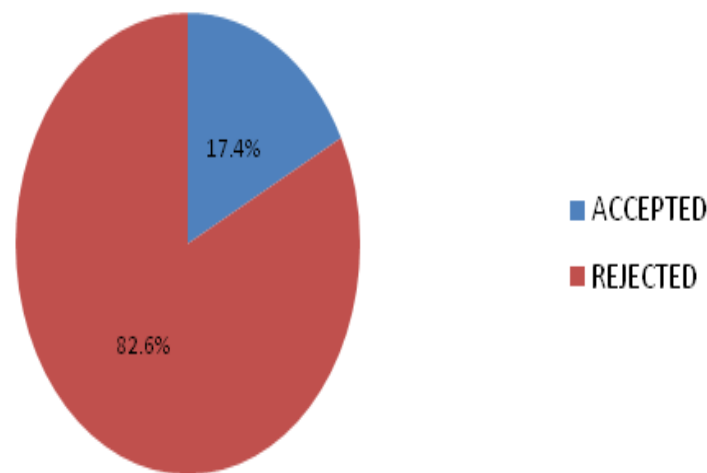


Figure 1 Acceptance rate of trabeculectomy.

REASONS FOR REJECTION OF SURGERY AMONG GLAUCOMA PATIENTS

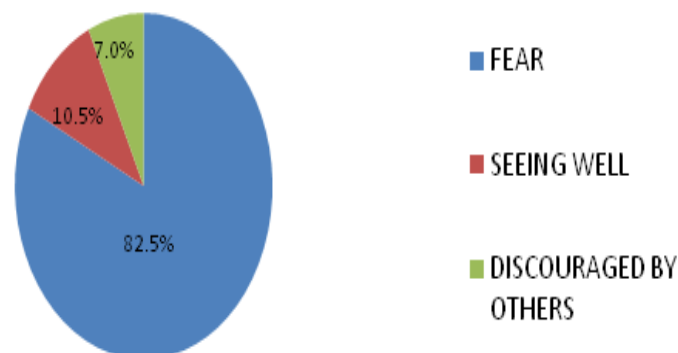


Figure 2 Reasons for rejection of surgery among glaucoma patients.

Table 2 Occupation of 138 patients with glaucoma

Occupation	No	%
Civil servant	38	27.5
Artisan/Trading	40	28.9
Clergy	3	2.2
Student	6	4.4
Retired	33	23.9
Farming	18	13.1
Total	138	100

Discussion

Even though surgery has been adjudged to be the best treatment modality for primary open angle glaucoma in terms of long term efficacy and slowing down of its progression, Nevertheless patients still have to make their choice on its acceptance more so that other treatment options such as medication and laser therapy are available. The acceptability of Trabeculectomy in this study was 17.4% while 82.6% were not ready to accept it, This low acceptability is quite common in the environment.^{18,20} For instance, Bekibele and Oluleye²⁰ reported a similar result of 18% while Adegbehingbe¹⁸ reported a very low level of acceptance of 8.2% but some other authors^{19–22} working in the same similar environment reported a higher level of acceptance, Omoti et al.¹⁹ reported 32.5% while Onyekwe²¹ reported 46.8% and Mafwiri et al.²² reported 48%. On the contrary Adekoya et al.²³ reported a highly remarkable level of acceptance of 68.8%, this high level of acceptance in their study might be due to fact that their study was conducted in a more civilized metropolitan city than some of these other studies, Moreover, they also remarked that the high level of acceptance reported in their study may not actually translate into the patients having the surgery since it was a verbal acceptance. In this study a good proportion of the patients were literates 78.3% and only 21.7% were illiterates but this did not translate into a high level of acceptance for surgery, it might be that acceptance for surgery may have to do with the mindset of the patients rather than their Educational status.

Fear of going blind was the most common reason for non-acceptance among 82.5% in this study, while being able to see well was the reason in 10.5% of them and discouragement by other patients who had trabeculectomy accounted for the remaining 7.0%, fear was also the most common reason for non-acceptance in some other studies.^{20,23} Adekoya et al.²³ reported 47.7% while Bekibele and Oluleye²⁰ reported 22.8%, other reasons reported by Adekoya et al.²³ such as cost and religious beliefs were not observed in this study, this is contrary to studies on cataract surgery uptake in Nigeria whereby cost was the most common barrier.^{24,25} Being able to see well is the next common reason for non-acceptance of trabeculectomy in this study, this is because they felt there was no necessity for surgery. Also Adekoya et al.²³ reported that patients with normal vision were more likely to refuse surgery in their study (O.R 2.3) 95% confidence interval 1.1-4.9, so also Quigley et al.²⁶ reported that those that agreed to surgery had relatively worse vision in one of their eyes. Similarly, in this study majority of the patients that accepted surgery as treatment modality were actually blind in one or both eyes (70.8%) with their visual acuity ranging from $\leq 3/60$ to No light perception and central visual field of $\leq 10^\circ$ from fixation, they all had the erroneous belief that

surgery will restore back their vision whereas surgery would no longer be beneficial at that stage of disease.

Conclusion & recommendations

There is a low level of acceptance for trabeculectomy in this study due to fear of going blind and patients were willing to accept surgery when they are already blinded by the disease at which stage having surgery would no longer be beneficial. There is therefore the need for counselling of glaucoma patients on the benefit and safety of Trabeculectomy to increase the acceptance level before patients become irreversibly blind from the disease.

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Conflicts of interest

Author declares that there is no conflict of interest.

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