

Attitude of Ophthalmologists to Transscleral Diode Laser Cyclophotocoagulation Treatment for Glaucoma Before and After Training

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Background: Transscleral diode laser cyclophotocoagulation as treatment for glaucoma is effective in controlling IOP and preserving vision.¹ Scaling up of the treatment by training has the potential to change attitudes among ophthalmologists as a viable option not just for painful blind eyes but also seeing eye,² even as primary treatment.³ This has the potential to avoid needless blindness from poor adherence to treatment and reduced acceptance of glaucoma surgery.⁴ The purpose of this study was to assess the change in attitudes of ophthalmologists to transscleral diode laser cyclophotocoagulation treatment for glaucoma before and after training

Methods: A qualitative study with Ethical approval from ATBU Teaching Hospital Bauchi and London School of Hygiene and Tropical Medicine. It is a multicentre study conducted across seven University Teaching Hospitals in Nigeria. Structured questionnaires with Likert scales were

administered to each trainee before training and four months to one year later after obtaining written informed consent. Data was collected and entered into Epidata database, converted and analysed by simple proportions on Stata.

Training: The training protocol was similar in all centres. The first training day was for lectures and demonstrations on lasers in general in the treatment of glaucoma, transscleral diode laser cyclophotocoagulation in particular, set up and maintenance of the machine and the treatment probes, database creation and data capture and online synchronization. Second, third and final training days were for hands-on training, patient assessment, follow up and review of days activities.

Results: Seven tertiary hospitals were involved. A total of 143 doctors were trained in the project. Out of these, 45 were consultants. Table 1 shows the details of the participation during the training. Table 2 shows some responses from the questions asked.

Table 1: Distribution of participants

Training centre	Ophthalmologists			Other staff	
	Consultants	Residents MOs	Total	Nurses, assistants	Total trained
1 Federal Teaching Hospital (FTH) Gombe	5	3	8	8	16
2 Lagos university Teaching Hospital, (LUTH) Lagos	6	9	15	0	15
3 Enugu State University Teaching Hospital, (ESUTH) Park lane, Enugu	6	17	23	2	25
4 National Eye Centre (NEC) Kaduna	11	18	29	0	29
5 University of Calabar teaching Hospital, (UCTH) Calabar	7	20	27	6	33
6 Jos University Teaching Hospital, (JUTH) Jos	5	14	19	1	20
7 Aminu Kano Teaching Hospital, (AKTH) Kano	5	17	22	1	23
Total	45	98	143	18	161

Table 2: Responses from trainees (%)

Question	Strongly agree		Agree		Neither		Disagree		Strongly disagree	
	Before	After	Before	After	Before	After	Before	After	Before	After
Do you feel you have sufficient knowledge to assess a patient for laser treatment?	11	55	40	42	20	0	24	0	3	0
Do you feel you have sufficient training to carry out laser treatment?	6	45	17	46	14	6	47	3	16	0
Do you feel you have sufficient training to manage patients after laser treatment?	18	41	23	52	21	7	31	0	8	0
Question	Almost always		Sometimes		Once in a while		Rarely		Never	
	Before	After	Before	After	Before	After	Before	After	Before	After
How often do you see glaucoma patients in your consultations?	91	94	7	6	1	0	1	0	1	0
When presented with a patient with advanced glaucoma how often do your consultations involve a discussion about different options of treatment including laser?	32	40	34	47	14	7	18	4	2	2
Do you ever advise patients to have laser treatment for glaucoma?	3	14	47	59	19	10	21	14	10	3
How often do you refer patients to glaucoma specialists for laser treatment?	5	17	37	38	22	22	22	16	14	6

Before the training, few doctors agreed that they have sufficient knowledge and training to assess patients for cyclodiode and carry it out, and fewer still advised patients to have the treatment but after the training, doctors were more confident in advising, assessing, offering or even carrying out laser treatment on their patients (Table 2).

When trainees were asked how was the training you received? These were some of the responses from the trainees: "The training was quite adequate and I think it was good enough for us to actually be able to do the procedure without having any issues."

"the training I received was really excellent. we have been having good reduction in the intra ocular pressure". "I will rate it very high.....prior to the training, we were not doing laser surgery for our patients ...but since the cyclodiode transscleral

laser lecture, we don't even wait for them not to do well in medical or surgical first before we give them all the options". "The training was excellent"

Conclusion: Adequate training and support with accessories were responsible for improved acceptance and use of laser treatment among ophthalmologists. Further support with the provision of more equipment is needed.

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