



KNOWLEDGE, ATTITUDE AND PRACTICE PATTERNS OF DOCTORS IN LIBERIA ABOUT DIABETIC RETINOPATHY

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ABSTRACT

Background: Diabetic retinopathy is an increasing cause of blindness. Diabetic retinopathy is the commonest microvascular complication of diabetes and is a leading cause of blindness, mainly in adults. Follow-up is crucial to the effective management of diabetic retinopathy, however, follow-up rates are often poor in sub-Saharan Africa. The aim of this study was to assess knowledge, attitude and practice patterns of doctors in Liberia about Diabetic Retinopathy. This study also reflects the barriers identified by patients and service providers to delivering good services for diabetic retinopathy. **Methods:** About 160 medical doctors were telephonically interviewed in different parts of Liberia. A questionnaire was prepared addressing basic aspects of knowledge about DR and about their attitude and practice patterns in management towards it. **Results:** Lack of awareness that diabetes causes irreversible blindness was identified as a major barrier by both patients and providers. Lack of training and access to doctors was also a major challenge. **Conclusion:** There is need of creating awareness among doctors and patients. There is a need of training doctors especially working in rural areas.

INTRODUCTION

There is a global increase in the population of diabetic patient. It is estimated that there will be an increase from 382 million in 2013 to 592 million by 2035.^[1] The rate of increase of diabetes in Africa over the same period is 109% (the highest in the world) from 20 million to 41 million. As the diabetes epidemic occurs, there is an imminent increase in visual loss from diabetic retinopathy in the Sub-Saharan Africa.^[2] Diabetic retinopathy (DR) is the commonest microvascular complication of diabetes and is a leading cause of blindness, mainly in adults of working age.

In many lowincome countries follow-up rates are low due to poor transportation infrastructure, costs to patients, and failure to communicate the benefits of returning.^[3] The impact of screening for diabetic retinopathy is clearly limited by the issue of poor follow-up, especially given the chronic nature of diabetes and its complications.^[4]

In Indonesia and China, barriers to diabetic retinopathy services include lack of (health) education on need for eye care, asymptomatic nature of diabetic retinopathy and non-referral by physicians.^[5,6] In developed countries like UK and USA,^[7,8] barriers identified include fear of laser treatment or surgery, lack of awareness that diabetic retinopathy can be asymptomatic and lead to blindness as well as the cost of attending clinic.

Physicians and surgeons have an important role to play in early detection of diabetic retinopathy, by timely referral to an ophthalmologist. Diabetes mellitus is a major health problem in Liberia, but we hardly see very few patients with diabetic retinopathy in eye clinics.

This made us inquisitive to assess about the knowledge, attitude and practice patterns among physicians and surgeons in Liberia.

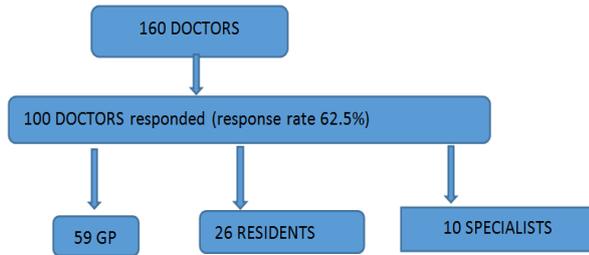
METHODS

After obtaining the approval of institutional review board. We obtain a list of 160 registered medical practitioners from the Liberia Medical and Dental Association.

A questionnaire was prepared addressing basic aspects of knowledge about DR- like how it can affect a patient's vision, how often a patient should be examined for it, how examination should be carried out, what are the common lesions in retina, how it is treated etc.

We also had questions about their attitude and practice patterns like- do you educate patients about DR, do you refer patients to an ophthalmologist, do you examine fundus yourself etc.

RESULTS



A telephonic survey was performed with all 160 members. Total 100 doctors responded from various parts of Liberia, working in various specialties (response rate 62.5%) Among 100 doctors 59 were in general practice, 26 were residents under training in various specialties and 10 were specialists. Among them 66 doctors were working in urban areas and rest 34 rest from rural During the survey we get to know that almost all doctors were aware that diabetic retinopathy can cause blindness and importance of early detection.

Less awareness was there that apart from blood glucose level, other risk factors like hypertension, dyslipidaemia are also important in pathogenesis of DR. Most were not aware about retinal changes in DR and the treatment option. Most of them believed that the mainstay of treatment for DR is surgery. Overall, it was encouraging to note that 75% doctors always educated their patients. None of them do dilated fundus examination. Lack of training and access to an ophthalmoscope were cited as the reasons for the some.

DISCUSSION

Many of the patients had an erroneous belief that diabetic retinopathy is symptomatic and this will give them sign to seek care. Lack of knowledge of the asymptomatic nature of diabetic retinopathy makes patient present mostly when symptoms develop.^[14] The health education about diabetic retinopathy appeared to be learnt mainly in the diabetic clinic. Little education was given in the eye clinic except by the doctors who have limited time to counsel the patients due to the volume of work and patients they have to see. Schoenfeld et al found that where complications of diabetic retinopathy are explained to patients, services were more utilised.^[15] Other authors found similar results.^[5,6,16] The education in the eye clinic should include explanation of what diabetic retinopathy is, its symptoms and effects with the use of poster pictures.

The health talk should be more detailed on the effect of diabetes on the eyes and the likelihood of it resulting in irreversible blindness if not given proper care.^[5]

This study shows that there is a good awareness about importance of early screening of diabetic retinopathy among the physicians and surgeons in Liberia.

Knowledge about exact pathogenesis, clinical features and treatment options is lacking among the doctors. More importantly, the patients do not reach the ophthalmologist for DR screening even within the same facility, is a significant challenge.

CONCLUSION

Possible solutions can be considered like conducting awareness programs about DR for doctors, training sessions about how to examine fundus and set-up a system by which the diabetic patients get screened for DR while being in the physician's offices. Training to see fundus would be important especially for GPs working in rural areas who do not have access to an ophthalmologist.

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