

Guest Editorial

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STOP Blindness - Jyot se Jyot Jalao

India is home to the world's largest number of blind people. As per National Programme for Control of Blindness (NPCB), the prevalence of blindness in India was 1.1% in 2001-02 and 1% in 2006-07.¹ Although there is reduction in prevalence rate, vision loss in any form has a severe impact on one's life and greatly affects their socio-economic status especially the lower income group.

Diabetes is increasing at an alarming rate in developed as well as developing world. Over 415 million people around the world suffer from this condition and it was responsible for 5 million deaths in 2015.² Yet, with 175 million cases currently undiagnosed, a vast number of people with diabetes are progressing towards complications unaware. Moreover, with 80% of the total number affected living in low- and middle-income countries, greatest number of people with diabetes is between 40 and 59 years of age where the epidemic is gathering pace at an alarming rate. In India, there are 62 million people with diabetes and another 77 million people estimated to be pre-diabetic.³ Despite the National Program for

Control of Blindness and other initiatives, blindness continues to be a major public health problem in India. There is a huge shortage of trained ophthalmologists which results in a delay in regular eye check-ups and routine ophthalmic care.

In order to overcome practical challenges like remote locations, transportation and poverty, there is a need for improvement in the practical aspects of remote ophthalmic diagnosis and care.

Patients with mild and severe form of Diabetic retinopathy come for examination but those who do not come for screening due to lack of awareness and affordability are missed. Huge number of asymptomatic cases for screening are also missed. Smart phone based retinal screening is an efficient and cost effective method to identify patients with mild and sight threatening disease in community settings. This method can reduce the direct and indirect cost for poor patients. The device can help in delivering eye care services to underprivileged population groups in resource limited or remote areas.

Equipment can give the basic screening results at the end of the process. In the screening process, Diabetics can assemble in a community setting & the Technician can transport the screener to a particular location on the motorbike and set up for Retinopathy screener. The retinal images will be acquired using smart phone based imaging device. These images can be evaluated remotely for Diabetes related changes at the Reading Centre. Early detection and treatment after screening can reduce the prevalence of Diabetic retinopathy in remote areas. It will also reduce the economic burden due to diabetic blindness in the country as a whole.

Initially in a small study in Mumbai, we have screened 200 patients using the fundus on phone camera. The average age of the patients was 53.9 years. The average duration of diabetes in Diabetic patients was 5.3 years. The prevalence of DR was 15.3% in the population having Diabetes.

Aditya Jyot Foundation for Twinkling Little Eyes (AJFTLE), in its endeavour to eradicate avoidable blindness, has joined hands with Municipal Corporation of Greater Mumbai (MCGM), to screen all the diabetics visiting the municipal dispensaries, for retinopathy, and provide treatment to those in need at affordable cost. A technician will be sent to the dispensaries where an image of the retina will be taken. The image will be read by an ophthalmologist through teleophthalmology and diagnosis provided. All those requiring further management will then be called on a prefixed day and place where an ophthalmologist would provide treatment in a van equipped with fluorescein angiography and laser. Further treatment can be provided at the hospital at an affordable cost. We are working towards extending the reach of our services in all districts of Mumbai and later to the entire country. This screening will have a great impact on the society. Diabetic retinopathy is a major cause

of preventable blindness in the working age population. Early diagnosis and treatment of diabetic retinopathy will prevent vision loss and improve the quality of life.

This drive is called “STOP blindness”- Screening through Tele Ophthalmology for Prevention of Blindness- “Jyot Se Jyot Jalao”.

References

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