

Commentary: Burden of diabetic retinopathy

Diabetes is an established global epidemic, and India is a strong contender for the diabetic capital of the world, currently second only to China.^[1] The prevalence of diabetes in India varies widely, ranging from 5% to 16% from region to region, albeit a significant number remain undiagnosed.^[2] Population-based studies in India over the last two decades, a majority of them carried out in South India, have reported a prevalence of diabetic retinopathy (DR) as approximately 18% in urban areas and 10% in rural areas.^[3-6] The advanced health-seeking behavior and healthcare facilities in urban India may also have contributed to these statistics.

Gadkari *et al.*,^[7] in the All-India Ophthalmological Society Diabetic Retinopathy Eye Screening Study 2014, reported a 21.7% nationwide DR prevalence in known diabetics. India is a subcontinent with variations in diet, lifestyle, ethnicity, and healthcare awareness and access, resulting in a region-specific variation in the prevalence and progression of diabetic retinopathy. In the present study, the prevalence of DR in self-reported diabetics visiting a tertiary center in the North-East Indian region was estimated at 30% overall, with vision-threatening retinopathy and maculopathy being 10.00% and 4.49%, respectively.^[8] They further reported a higher prevalence in the immigrant group in the region (50.00% in type 1 DM and 44.93% in type 2 DM) and lowest in the tribal groups (16.67% among type 1 DM and 22.35% among type 2 DM), largely attributed to differences in diet lifestyle among the ethnicities.

Literature from South India gives the prevalence of diabetic retinopathy among the self-reported diabetic rural population of Tamil Nadu as 17.6%. The prevalence of referable (sight-threatening) retinopathy was 5.3%.^[9] Isolated examination of self-reported diabetics coupled with a study conducted in the setting of a tertiary hospital carries the side effects of limited sample size, referral bias, and overestimation of disease prevalence. A majority of the North-Eastern population resides in rural areas owing to the terrain and accessibility issues in this developing region. This population would be substantially under-represented in a tertiary eye-care center. For strategic planning and development of efficient health care programs, an accurate estimate of the prevalence of DM and DR is of paramount importance. Over the past few years, DR has been increasingly affecting the rural sector.^[10] Community and population-based studies with proportionate representation of rural and urban populations are required.

The data from the current study is a gateway for larger scale, population-based studies to precisely estimate the burden of the disease in this region to tackle the epidemic of diabetes mellitus and diabetic retinopathy.

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