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Early detection of Diabetic Retinopathy through active screening of out-patients at ESI facility in Hyderabad

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ABSTRACT

Background: Diabetes Mellitus is one the major non-communicable diseases in India. ESI State Hospital, Nacharam, Hyderabad, India with the support of Novartis under its Public Health Initiatives, has implemented screening camps for early detection of Diabetic Retinopathy (DR). **Objectives:** In this analysis, we aim to identify the utility of the camps in early detection of Diabetic complications like DR. **Methods:** Twenty-four camps were conducted in the facility during Jun 2018 to Aug 2019. Subjects were screened and shortlisted for HbA_1c and Fundoscopy in an algorithm based screening protocol on predetermined camp schedule as per non-financial collaboration. **Results:** Of 2676 (male=1458; female=1218) subjects utilizing the camp services, 70% (1884) were referred to avail HbA_1c testing in the camps, which consisted of 55% (1041) known diabetics. Fifty seven percent of the subjects belonged to age group 40-59 years (range: 15-86). Nearly one-third (34%) had HbA_1c levels >7%. Nearly half (47%) of the known Diabetic subjects had HbA_1c >7% indicating the need for strengthening treatment adherence ($p<0.05$). Among subjects with HbA_1c >7%, twenty seven percent (38/142) had abnormal Fundoscopy results indicating need for regular screening for DR. More than a quarter (28%; 122/434) of the Fundoscopy results shown abnormalities in the fundus. **Conclusions:** The observations suggest that there is high probability of early detection of Diabetic Retinopathy if proper screening methods are implemented. Results also indicate the need for regular treatment adherence counseling for prevention and early detection of DR.

Key word: Diabetes, Diabetic Retinopathy, Fundoscopy, Early Detection, Active Screening