

Is twelve years old an acceptable age at which to begin Diabetic Retinopathy Screening?

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Aims

The English National Screening Programme for diabetic retinopathy (ENSPDR) states that “All people with diabetes aged 12 years and older should be offered screening for sight-threatening DR using digital photography for quality assurance purposes”.

The audit aims to assess whether the current guideline is suitable and whether diabetes duration should be taken into account when deciding at what age to start screening patients.

Methods

Retrospective analysis of 143 randomly selected patients aged twelve years or younger who have attended diabetic retinopathy (DR) screening in the Birmingham and Black Country Screening Programme.

Results

98% had Type 1 diabetes and mean visual acuity (VA) was 6/5 (6/4-6/36). 73 were under 12 with 7 the youngest age and 70 were aged 12. Both groups had mean diabetes duration of 5 years (1month-11years). For those under 12, 7/73 (9.6%) had background DR, of these mean diabetes duration was 7 years (6-8) and the youngest aged 8. In those aged 12, 5/70 (7.1%) had background DR; of these mean diabetes duration was 8 years (6-11).

In total 12 (8.4%) patients aged 12 years or under developed DR. No patients had retinopathy worse than background changes. One patient was referred to ophthalmology for VAs of 6/12 right eye and 6/18 left eye and was diagnosed with optic atrophy so returned to annual screening for DR.

Conclusions

The results show that the current guideline on when to begin screening could be amended as patients under the age of 12 were showing signs of DR. Diabetes duration may help when deciding what age to start screening younger patients as DR was not seen in those with disease duration of less than six years. We suggest screening should begin after six years of diagnosis (or age 12, whichever is earlier) for prepubertal onset type 1 diabetes.