

Current epidemiology of diabetic retinopathy (DR)

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Purpose:

To give a survey of publications concerning incidence and prevalence of diabetic retinopathy and trends.

Methods:

Review of publications.

Results:

Due to the lack of diabetes registers exact figures do not exist. There is a large variety of regional studies producing a confusing flood of different aspects.

Trying to extract trends we found:

- estimated diabetic patients in 2003: 194 millions; in 2025: 333 millions, 10-15% type 1; 85-90% type 2
- prevalence of type 2 is increasing more than type 1, strongly correlated with age (problem of "graying" societies)
- trend to lower age at diagnosis
- prevalence of DR after 10 years 39%, after 20 years 60-80%
- DR is major cause of blindness in employable age in western industrialized countries
- risk of DR increases with longer duration of diabetes, poor metabolic control, hypertension, obesity
- despite improved therapy options number of blindness caused by DR did not decrease as expected (St.Vincent Declaration 1989)

Conclusion:

Diabetic retinopathy is an increasing (economical) problem in western industrialized and developing countries and still vision threatening. Estimated numbers for the future are alarming. Significant correlations between blood glucose level, blood pressure, body mass index and prevalence of retinopathy exist.

Take-home message:

As ophthalmologists we should aim at prevention and interdisciplinary cooperation to limit severe complications of DR (blindness).

