

Retinopathy

FAMILY PRACTICE

Retinopathy impacts on health-related QoL

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓

1 The aim of this exploratory research study was to evaluate the symptom experience of diabetic retinopathy, its impact on daily activities and health-related quality of life (HRQL) and the applicability of two vision-specific questionnaires.

2 Four focus groups of people with type 1 or type 2 diabetes and severe, moderate or mild non-proliferative diabetic retinopathy were recruited (n=15).

3 The data were analysed using content analysis and descriptive statistics.

4 A range of symptoms and impact was described by participants.

5 Difficulty driving and reading were noted with all levels of severity; people with proliferative diabetic retinopathy and decreased visual acuity forego other life aspects like work, sport and reading.

6 Those who were severely affected, found that diabetes care activities (exercise, preparing insulin injections, etc) were difficult to accomplish.

7 Loss of independence had a profound impact on social activities, but for those who had not experienced other diabetes complications, threat of vision loss was the most devastating.

8 Loss of mobility and independence associated with decreased visual functioning and loss were major concerns, and moderate and severe non-proliferative and proliferative diabetic retinopathy associated with visual impairment significantly impact on HRQL.

Coyne KS, Margolis MK, Kennedy-Martin T et al (2004) The impact of diabetic retinopathy: perspectives from patient focus groups. *Family Practice* 21: 447-53

The thoughts and concerns of people with diabetic retinopathy



Deborah Broadbent, Director of Diabetic Eye Screening, Royal Liverpool University Hospital

The impact of living with diabetes on the patient is vitally important and yet often overlooked by professionals who, for the best of reasons, tend to concentrate on the objective measures of control.

From a purely personal perspective, some time ago

I was brought up short by a patient with type 1 diabetes in whom I had just diagnosed the first signs of significant diabetic retinopathy. After what I considered to be a careful and sympathetic explanation he angrily stood up, said that I had no idea what it was like to live with diabetes and left the room. He was right. I do not know what it is like to live with diabetes or to have diabetic retinopathy.

That is why studies such as that by Coyne et al (see left) are so important. It is essential that we understand the profound impact that diabetic retinopathy can have. It is essential that we know how it affects patients' lives, their fears, their expectations and their knowledge levels.

This study also describes how visual impairment can affect an individual's ability to manage their diabetes. Patients with visual impairment may find it difficult to exercise – not being able to drive to the gym (this is an American study!), not being able to participate in ball games and being afraid of the effect of aerobic exercise on their eye condition. Patients cannot follow an appropriate diet if they are not able to get to the shops, if they are not able to read the labels on food items or able to see well enough to cook. And if they cannot see they may be unable to draw up their insulin or self-monitor their blood glucose levels. Loss of independence and reliance on others causes some patients to avoid activities that they had previously enjoyed.

The paper also looks to refine the available quality of life questionnaires by discussing the relevance and depth of the standard questions to people with diabetes. Although the study sample was small, the paper gives medical professionals important insights which should lead to greater understanding of the thoughts and concerns of people with diabetic retinopathy.

DIABETIC MEDICINE

Stockport eye screening with SL-BIO

Readability	✓✓✓
Applicability to practice	✓✓
WOW! factor	✓✓

1 The objective of this study was to determine the specificity and sensitivity for sight-threatening eye disease (STED) of the diabetic retinopathy screening scheme for Stockport, UK, during the time period of April 2000–March 2001. The principle method of screening used was slit-lamp binocular indirect ophthalmoscopy (SL-BIO).

2 Consultant ophthalmologists recalled a sample of screen-negative patients for further

assessment, and screen-positive patients who were referred were tracked through the hospital system to determine the outcome.

3 A total of 3510 people with diabetes were screened and specificity and sensitivity for STED were 99 % and 75.8 %, respectively.

4 In the Stockport area the current screening arrangements are satisfactory in terms of specificity but sensitivity does not meet NSC standards.

5 The coverage of the population was 1.2 % over 12 months and 1.5 % over 15 months – this needs to be improved.

6 The researchers conclude that an integrated computerised register now needs to be further developed.

Warburton TJ, Hale PJ, Dewhurst JA (2004) Evaluation of a local optometric diabetic retinopathy screening service. *Diabetic Medicine* 21: 632-35

‘References provide clues as to possible systemic disorders associated with visual problems experienced by the people who appear in the narrative of the Bible’

DIABETOLOGIA

Modern care lowers complications

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓

1 A prior study found decreased incidence of nephropathy and unchanged incidence of severe retinopathy in people with type 1 diagnosed in childhood and within 20 years duration of diabetes; the current study evaluated the incidence 5–10 years later in the same group.

2 Of the 269 people studied, the cumulative proportion of severe retinopathy had declined; after 25 years it was 47 %, 28 % and 24 % in the cohorts 1961–65, 1966–70 and 1971–75, respectively; after 30 years it was 53 % and 44 % in the oldest cohorts.

4 The cumulative proportion of nephropathy after 25 years, was 30 %, 8 % and 13 % in the cohorts 1961–65, 1966–70 and 1971–75; after 30 years it was 32 % and 11 % for the oldest cohorts.

5 Modern diabetes care reduces the incidence of retinopathy and nephropathy in type 1 diabetes.

Nordwall M, Bojestig M, Amqvist HJ, Ludvigsson J (2004) Declining incidence of severe retinopathy and persisting decrease of nephropathy in an unselected population of type 1 diabetes – the Linköping Diabetes Complications Study. *Diabetologia* **47**: 1266–72

BRITISH JOURNAL OF OPHTHALMOLOGY

Mydriasis reduces rate of technical failure

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

1 The effects of mydriasis and single- vs three-field photography on screening for diabetic eye disease using digital photography were assessed.

2 Slit lamp examination findings and digital fundal photographs were compared for the detection of retinopathy and for referable retinopathy in 794 eyes.

3 Three strategies were used: undilated single-field; dilated single-field; and dilated multiple fields.

SURVEY OF OPHTHALMOLOGY

Ancient references to eye diseases provide clues

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

1 This article discusses descriptions of the eye, its parts and disorders as they appear in the Bible and the Talmud.

2 Both the Old Testament and the Talmud refer to the eye and its diseases.

3 Ancient ophthalmology emanated from Greek and Egyptian medicine, and was confined to diseases of the eye.

4 References provide clues as to possible systemic disorders associated with visual problems experienced by the people who appear in the narrative of the Bible.

5 It is postulated that Isaac could have had diabetic retinopathy, and Jacob hypermature cataract.

Marmor M (2004) History of Ophthalmology Survey of Ophthalmology **4**: 446–53

4 Mydriasis reduced the proportion of ungradable photographs from 26 % to 5 %; neither mydriasis nor three-field photography improved sensitivity or specificity for detection of any retinopathy or referable retinopathy when compared with undilated field photography.

5 The sensitivity and specificity for detecting referable retinopathy using undilated single-field, dilated single-field and dilated three-field photography were 77 % and 95 %; 81 % and 92 %; and 83 % and 93 %, respectively.

6 Mydriasis and the three-field photography (as used in this study) reduce numbers of ungradable photographs. They do not increase sensitivity or specificity of detecting diabetic retinopathy.

Murgatroyd H, Ellingford A, Cox A et al (2004) Effect of mydriasis and different field strategies on digital image screening of diabetic eye disease. *British Journal of Ophthalmology* **88**: 920–24

EYE

Pregnancy and sight-threatening diabetic retinopathy

Readability	✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓

1 The objective of this study was to report the management and outcomes of sight-threatening diabetic retinopathy (STDR) in pregnancy.

2 A total of 16 eyes of eight people who developed pregnancy-related STDR requiring treatment over a 12-year period were included in the study.

3 The mean age of patients at presentation was 30.75 ± 3.8 years and the mean duration of diabetes was 21.0 ± 5.1 years.

4 Of the patients, 87.5 % showed progression of diabetic retinopathy during pregnancy, 71 % of which were in the sight-threatening proliferative category.

5 In the postpartum period, 81 % of patients continued to progress to proliferative diabetic retinopathy, requiring panretinal photocoagulation and other surgical procedures.

6 In pregnancy STDR is rare, but can have devastating consequences for mother and child.

7 Laser photocoagulation should be considered for pregnant women with severe preproliferative diabetic retinopathy.

8 Close follow-up should be extended in the postpartum period in this group of patients, until the retinopathy has stabilised.

9 The worst outcome was associated with the presence of combined rhegmatogenous and tractional retinal detachment and neovascular glaucoma.

Chan WC, Lim LT, Quinn MJ, Knox FA, McCance D, Best RM (2004) Management and outcome of sight-threatening diabetic retinopathy in pregnancy. *Eye* **18**: 826–32

‘Laser photocoagulation should be considered for pregnant women with severe preproliferative diabetic retinopathy’