

Clinical care and other categories posters: lesser known complications

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Prevalence and severity of dry eye disease and its effect on quality of life in people with Type 1 and Type 2 diabetes

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Aims: To assess the interrelationship between dry eye disease (DED) prevalence and severity, quality of life (QoL), and diabetic retinopathy (DR) in people with Type 1 and Type 2 diabetes.

Methods: A cross-sectional survey of 152 people (110 people with and 42 people without diabetes). All study participants completed Ocular Surface Disease Index (OSDI) and Dry Eye-related Quality of Life Score (DEQS) questionnaires.

Results: DED prevalence was 55% for patients with Type 2 diabetes and 27% for patients with Type 1 diabetes. DED severity was significantly worse in Type 2 diabetes ($p = 0.003$), with 47% patients reporting mild, 22% moderate and 31% severe DED. Both Type 2 ($p < 0.001$, $\rho = 0.672$) and Type 1 diabetes ($p < 0.001$, $\rho = 0.753$) were significantly associated with QoL reduction, and a greater deterioration in QoL was observed in patients with Type 2 diabetes ($p = 0.02$). For both Type 1 and Type 2 diabetes, significantly worse QoL was observed in patients with severe DED than mild DED ($p = 0.01$). Amongst patients with DR, DED prevalence ($p = 0.005$) and severity ($p = 0.009$) were significantly greater in Type 2 diabetes compared to Type 1. For patients without DR, no significant differences in DED prevalence or severity were found between Type 1 and Type 2 diabetes.

Conclusion: DED was more common, more severe, and caused a greater reduction in QoL in people with Type 2 diabetes compared to those with Type 1. A routine evaluation of the ocular surface is crucial in people with Type 2 diabetes, in addition to DR screening.

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Gastrointestinal symptoms and their impact amongst patients with diabetes in the United Kingdom: time for action?

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Introduction: Compared with diabetes vascular complications, gastrointestinal (GI) symptoms receive far less attention yet are potentially common, disabling and diabetes-related. There is limited UK data on prevalence of GI symptoms in diabetes and their impact upon quality of life (QOL).

Aims: To identify the prevalence of GI symptoms and diagnoses, their effect upon QOL and whether they are addressed by diabetes healthcare professionals (HCPs).

Methods: A survey was hosted on the website www.diabetes.co.uk. Participants with diabetes were asked to complete a questionnaire about GI symptoms and diagnoses, impact upon QOL and discussion with their HCP.

Results: 1,660 participants with diabetes responded, mean age 57 years. 77% had Type 2 diabetes, 19% Type 1 diabetes, 4%

other diabetes. 92% reported GI symptoms; 27% experienced these daily, 42% at least weekly. 48% reported symptoms interfering with their normal activities and 8% reported symptoms with a high impact upon QOL, stopping them from leaving home or going to work. Predominant symptoms were abdominal pain, change in stool frequency and flatulence. To relieve symptoms, 60% of participants tried dietary modification and 42% tried medication (31% over the counter). Only 47% of participants discussed symptoms with their HCP and few (22%) received a diagnosis (including irritable bowel syndrome, drug side effects, neuropathic bowel and pancreatic exocrine insufficiency).

Conclusion: These results indicate that GI symptoms are very common amongst the diabetes population and can significantly impact upon QOL. Paradoxically, patients rarely raise GI symptoms with their HCPs. Our data support the concept that HCPs should enquire about and address GI symptomatology within diabetes consultations.

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Is diabetes really a risk factor for acute eye infection?

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Aim: Diabetes increases risk of certain infections. However, its influence on eye infections is not well studied. We examined if diabetes was associated with increased risk of acute ocular infection.

Methods: Using the Royal College of General Practitioners Research and Surveillance Centre database, a retrospective cohort study was carried out over a five year period. We investigated infection incidence over a wide range of ocular infections; conjunctivitis, blepharitis, sty/chalazion, endophthalmitis, orbital cellulitis, infectious keratitis/keratoconjunctivitis, and lacrimal gland infections. A subset analysis was carried out on the population with diabetes to investigate the relationship between infection incidence and glycaemic control. Glycaemic control was examined using the area under the HbA1c curve during the follow-up period.

Results: A total of 938,440 patients had complete data that met our inclusion and exclusion criteria. We identified 3,273 patients with Type 1 diabetes and 45,311 with Type 2 diabetes. 65,852 patients were identified to have one or more infections which included; conjunctivitis ($n = 39,245$), blepharitis ($n = 14,390$), sty/chalazion ($n = 18,160$), endophthalmitis ($n = 52$), orbital cellulitis ($n = 609$), infectious keratitis/keratoconjunctivitis ($n = 365$) and lacrimal gland infections ($n = 267$). Our models demonstrated an association between diabetes and conjunctivitis (Type 1 OR 1.69; 95% CI 1.51-1.88; $p < 0.0001$ and Type 2 OR 1.17; 1.13-1.20; $p < 0.0001$), Type 1 and blepharitis (OR 1.39; 1.06-1.83; $p = 0.0184$), and Type 2 and endophthalmitis (OR 2.81; 1.40-5.62; $p = 0.0036$). There was no association between glycaemic control and risk of any infection.

Conclusion: Conjunctivitis was the only eye infection consistently more common in diabetes. Glycaemic control is not an influencing factor in eye infection.