Report from the IDF Congress 2017

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In December, delegates from 160 countries gathered for the International Diabetes Federation's 2017 Congress in Abu Dhabi to learn about and discuss the latest developments in diabetes clinical practice, management, education, prevalence and public health. Here, Nigel Campbell presents his brief highlights.

Prior to attending the IDF conference, it was my privilege to be invited to Uganda on a mission trip. I had been visiting a mission school and, while there, took some time to visit a hospital in Kiwoko, which is sponsored by our local Health and Social Care Trust.

I spent some time at the diabetes clinic and noted the difficulties facing professional staff in an outpatient environment. Drug availability was limited to metformin and a sulfonylurea, and then only if the patient could afford it. Insulin is available, although supply is neither guaranteed, nor affordable. Sadly, diabetes care does not attract the same fundraising success as other hospital activities, such as sight-restoring surgery or neonatology beds. The IDF conference was of special interest, therefore, because of its interest in the more equitable worldwide provision of diabetes care and services – something that remains a challenge.

Having travelled directly from Uganda to the United Arab Emirates, the venue for the event emphasised the stark contrast in healthcare resources between countries. The attendees, just over 7000 from all over the world, met in the ADNEC complex, and a full and varied programme was provided from 4–8 December.

My initial impression of the programme was of its variety. In recent years, large cardiovascular outcome trials have swamped the conferences and squeezed other aspects of living with diabetes and management to the sidelines. That was not the case at the IDF and I found much for the general practitioner with an interest in diabetes. Since diabetes affects the whole person, I strongly believe that the generalist approach is needed, along with the specialist.

Let me look at some of the "forgotten complications of diabetes". First, psoriasis was on the list and Dr Rajeev Chawla from India presented a great summary. Psoriasis is an inflammatory condition, mediated by an autoimmune T-cell response, and is an independent risk factor for both type 1 and type 2 diabetes. Those most affected share similar risk factors with those with diabetes and, therefore, patients with psoriasis should receive aggressive cardiovascular risk-factor management, like those with rheumatoid arthritis. I learnt that I must pay more attention to these patients.

Professor Richard Donnelly from Nottingham presented a lecture on non-retinopathy eye complications and explained that all of the common eye conditions we see in practice are twice as common on average in diabetes – glaucoma, age-related macular degeneration, myopia (some protection against retinopathy, though) and all types of cataract.

Finally, Dr Lewis Winning, a lecturer at Queen's University Belfast's dental school, presented the link between diabetes and periodontitis. This infective condition produces chronic inflammation in the mouth and is the sixth most prevalent condition affecting populations worldwide. There is a bi-directional relationship with diabetes; periodontitis increases the risk of having diabetes (PRIME study from Belfast presented as proof) and individuals with diabetes are three times more likely to develop periodontitis. The IDF have, therefore, released joint guidance with the European Federation of Periodontology (http://bit.ly/2BOjfrI).

Tuesday afternoon saw the release of two important studies, DISCOVER and DiRECT.

DISCOVER is a 3-year global observational study into treatment patterns for type 2 diabetes. Over 16 000 participants were recruited across 38 countries. The study team presented findings showing variation in management when initiating second-line treatments around the world. HbA_{1c}

variation was surprisingly small and microvascular complications correlated with HbA_{1c} levels, but macrovascular complications seemed more related to diet than glucose levels. Professor Naveed Sattar commented that it provided a good snapshot of standards of care at baseline and insight into management strategies around the globe. Second-line treatment worldwide is most commonly sulfonylurea. DPP-4 inhibitors are in second place and insulin third, with the order showing some variation by region.

The second study discussed was DiRECT, presented by Professors Roy Taylor, from Newcastle, and Mike Lean, from Glasgow. This study, funded by Diabetes UK, asks if type 2 diabetes can be put into remission by an intensive, low-calorie, diet-based, weight management programme delivered entirely in primary care. First-year results showed that remission rates (defined as having an HbA_{1c} <48 mmol/mol at 12 months coupled with being free of hypoglycaemic medicines for 2 months) correlated with weight lost: 86% remission in those losing 15 kg of weight or more; 57% for those losing 10–15 kg; 34% remission with 5–10 kg weight loss; and only 4% in the control group. Data were presented looking at those who responded best and noting that they had had diabetes for a shorter time. The concept of beta-cell de-differentiation due to excess fat and reactivation with weight loss, especially where de-differentiation was not prolonged, was postulated as a mechanism.

The IDF Diabetes Atlas for 2017 was discussed in several lectures and drilling down into the data reveals many interesting statistics. Naturally, the MENA (Middle East and North Africa) area was studied in detail. Prevalence of diabetes in the region sits at 10% (second only to North America), but the number affected is expected to rise by 110% to 82 million people by 2045; the rest of Africa expects an even greater increase of 145%. One in two deaths attributable to diabetes were before the age of 60 years. This, coupled with my experience of diabetes care in rural Uganda, surely must lead to global concern.

At a later time slot, an interesting debate was held between Professor Brian Frier, from Edinburgh, and Professor Markolf Hanefield, from Germany, on the relationship between hypoglycaemia and adverse cardiovascular outcomes. Both noted the association in many of the published studies over recent years and admitted causality could not be proven. Professor Frier believed in the association, but felt that the DEVOTE and DCCT studies went too far in their conclusions – not being adequately powered to do so. Professor Hanefield suggested hypoglycaemia was just another marker of frailty and that the association is between frailty, not hypoglycaemia *per se*, and adverse cardiovascular outcome.

Interest in cardiovascular outcome trials exists in healthcare professionals, but what about patients? Are they concerned about cardiovascular risk? Interim results of a global survey undertaken by the IDF and Novo Nordisk were presented. To date there have been 943 responses from 32 countries to the Taking Diabetes to Heart survey. One in 3 respondents considered themselves to be at low risk of cardiovascular disease, while 1 in 6 had never discussed type 2 diabetes and cardiovascular risk with a healthcare professional. With cardiovascular disease being the leading cause of disability and death among patients with type 2 diabetes, clearly there is a need for better education and improved empowerment of people with diabetes.

My final highlight from the conference is from a presentation by Professor Solomon Tesfaye, from Sheffield, on screening for diabetic neuropathy. Screening for diabetic retinopathy has moved diabetes from being the leading cause of blindness in the UK, yet neuropathy screening has not had the same success in terms of lower leg amputations. Professor Tesfaye presented a convincing argument for a one-stop microvascular clinic employing novel point-of-care devices for the detection of diabetic neuropathy alongside retinal screening. He quoted American Diabetes Association guidance from 2017 and explained the Toronto consensus on classification of diabetic neuropathy, and gave us an alarming statistic of 30% of type 2 patients having some form of neuropathy when assessed by these novel devices.

Many other topics were covered and abstracts are available from the IDF website. I returned home with many ideas for audit and change within my own practice. ■

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