

European Association for the Study of Diabetes 49th Annual Meeting

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Men with type 1 diabetes have better glycaemic control than women

A large European study suggests men with type 1 diabetes have better glycaemic control than women, but this difference is not seen in young boys and girls.

Since there are limited data showing differences in glycaemic control in type 1 diabetes between the sexes, Professor Sarah Wild from the University of Edinburgh and colleagues from the International Quality of Care for Type 1 Diabetes group investigated this issue using a large international dataset representing 142 260 children and adults with diabetes from 12 countries.

The researchers used HbA_{1c} as a measure of glycaemic control, and compared female and male levels, within three age ranges (<15 years, 15–29 years and >30 years of age).

In the two older age categories, women aged 15–29 years were 8% more likely to have a higher HbA_{1c} (58 mmol/mol [$\geq 7.5\%$]) than men of the same age, and women aged 30 years and over were 6% more likely to be over the target than men in the same age group.

Professor Wild concluded: “One explanation could be that women tend to have lower haemoglobin levels than men which could explain the higher HbA_{1c} levels, but further research is required to confirm this.”

Phase III results for dulaglutide show positive patient-reported health outcomes

Eli Lilly and Company has announced positive patient-reported health outcomes from the Phase III clinical trial of dulaglutide, an investigational, long-acting glucagon-like peptide-1 (GLP-1) receptor agonist being studied as a once-weekly treatment for type 2 diabetes.



In addition to reductions in HbA_{1c} levels and weight at 26 and 52 weeks with dulaglutide 1.5 mg, dulaglutide-treated patients reported significant, positive improvements compared to baseline across several patient-reported indicators of diabetes management measured using validated questionnaires (i.e. self-perception of weight and perceived levels of hypoglycaemia).

Efficacy of 2.5 years for Tresiba[®]

New data from Novo Nordisk show that 80.5% of people with type 2 diabetes that received the recently launched Tresiba[®] (insulin degludec) plus metformin were able to maintain good glycaemic control (HbA_{1c}: 53 mmol/mol [7%]) for 2.5 years. "These results demonstrate that Tresiba[®] enables patients with type 2 diabetes to sustain long-term control", said lead study investigator Professor Chantal Mathieu, Katholieke Universiteit Leuven, Belgium.

A further 26-week add-on study was carried out where some participants not in good glycaemic control received once-daily liraglutide as an intensification. In total, 58% of these people attained a target HbA_{1c} below 53 mmol/mol (7%), suggesting an effective way to achieve target levels.

Diabetes education and better self-management and quality of life link

Results from the global DAWN2[™] (Diabetes Attitudes, Wishes and Needs 2 study), presented at the meeting showed that diabetes education is associated with better self-management, and quality-of-life and psychological well-being.

However, the DAWN2[™] study found that more than a quarter of people with diabetes in the UK (26.8%) have never attended a diabetes education programme, even though 79.6% of people who have participated in diabetes education have found it useful. When asked, 59.43% of healthcare professionals agreed that improving the availability of self-management education would reduce the overall condition burden.

Changes to life insurance due to improvements in life expectancy

A recent UK study revealed that life expectancy for people with type 1 diabetes has substantially improved, and this improvement should now be reflected in life insurance and other relevant policies for those with the condition. The research is by Professor Helen Colhoun and Shona Livingstone, University of Dundee, and colleagues on behalf of the Scottish Diabetes Research Network.

“Historically those with type 1 diabetes have been reported to have a reduced life expectancy compared to the general population but estimates are seldom based on contemporary data”, said Professor Colhoun.

The study looked at 24 971 people living in Scotland with type 1 diabetes and aged 20 years or older. In those with type 1 diabetes, the remaining life expectancy of those aged from 20–24 years was 45 years and 47 years for men and women, respectively, compared to estimates of 56 and 61 years respectively for the male and female general populations.

Having children lowers mortality in people with type 1 diabetes, and more so in women

New published research presented at the meeting showed that having children lowers mortality in people with type 1 diabetes, with this trend more so in women than in men.

In this study, Dr Lena Sjöberg of the University of Helsinki and the National Institute for Health and Welfare, Helsinki, Finland, and colleagues examined mortality and the causes of death among subjects with childhood-onset type 1 diabetes, and compared the differences between childless people and those having had offspring.

In general, the more children a person had, the lower the mortality, but this trend was more pronounced for women than for men.

Dr Sjöberg said: “One possible reason for this gender difference is that women with type 1 diabetes are trained and well motivated to achieve better metabolic control during pregnancy and that this motivation may persist also post partum.” However, she added: “One of the limitations of a register study is that you don’t know who have chosen to remain childless or to have fewer children than desired, and whether those with diabetes have done so specifically because of their disease.”

Phase III results for first SGLT2 inhibitor

Results from the phase III trials for canaglitlozin, manufactured by Janssen Research & Development, LLC (Janssen), were presented at the meeting in Barcelona. Approved in the US with the name INVOKANA[®], canaglitlozin is the first in a new class of medications called sodium glucose co-transporter 2 (SGLT2) inhibitors, which increases glucose excretion in the urine.

The results from a 52-week analysis suggests that canaglitlozin improves glycaemic control and is generally well-tolerated compared to placebo in those whose type 2 diabetes is not adequately controlled by metformin and a sulphonylurea.

Results from the randomised, double-blind, placebo-controlled 52-week study showed that canaglitlozin, at both the 100 mg and 300 mg doses, lowered glucose levels and provided greater reductions in secondary end-points of body weight and blood pressure compared to placebo.

Big breakfast rich in protein and fat improves blood sugar control



A big breakfast rich in protein and fat appears to offer more benefits to people with type 2 diabetes than a smaller low-calorie breakfast, concluded research presented by Professor Daniela Jakubowicz, Tel Aviv University, and Dr

Hadas Rabinovitz, The Hebrew University of Jerusalem, Rehovot, Israel, and colleagues.

This randomised, controlled trial, included overweight and obese, non-insulin-dependent adults with type 2 diabetes. Participants were randomised to balanced low-calorie diabetic diets with either a big breakfast (BB), with a higher percentage of protein and fat, or a small breakfast (SB).

At end of follow-up, 13 weeks later, greater HbA_{1c} and systolic blood pressure reductions were observed in the BB than SB group. Hunger scores were lower in the BB group and greater improvements in fasting glucose were observed in the BB group comparison to the SB group.

Professor Jakubowicz said: "A simple dietary manipulation of [a] big breakfast diet rich in protein and fat appears to have additional benefits compared to a conventional low-calorie diet in individuals with type 2 diabetes."