

Diabetes UK Annual Professional Conference 2009

The changing face of diabetes

11–13 March 2009, Glasgow, Scotland

Hypoglycaemic episodes linked to cognitive decline in people with diabetes

Severe hypoglycaemic episodes can lead to poorer memory and diminished brain power in people with type 2 diabetes, according to new research presented at the conference.

The study of 1066 people with type 2 diabetes aged 60–75 years looked at memory, logic and concentration to establish their level of brain function. Seven neuropsychological tests were undertaken that tested people's memory for faces, recollection of linear stories, vocabulary, the ability to re-organise a sequence of letters, as well as some other cognitive functions.

The results showed that 113 people who had previously experienced severe hypoglycaemic episodes scored lower on general cognitive ability and vocabulary than the rest of the group, even after adjustments for age, gender and "pre-morbid cognitive ability" (the cognitive ability that

does not naturally decline with age) of the participants.

Dr Jackie Price from the University of Edinburgh, who led the research, said: "These findings suggest that exposure to severe hypoglycaemia is associated with cognitive decline in people with type 2 diabetes...".

Dr Ian Frame, Director of Research at Diabetes UK, said: "This study reinforces previous evidence which suggests that poorly controlled diabetes affects the functioning of the brain ... We already know that type 2 diabetes increases the risk of developing Alzheimer's disease, which is a type of dementia, and this research adds another piece to a very complex jigsaw puzzle."

There are at least 670 000 people in England aged 60–75 years old with type 2 diabetes and around a third could be at risk of a severe hypoglycaemic episode.

Effects of liraglutide on blood pressure and body composition

Analyses from the LEAD (Liraglutide Effect and Action in Diabetes) programme of studies were presented.

As well as reductions in HbA_{1c} and weight, data from LEAD-2 and LEAD-5 showed that liraglutide was associated with reductions in systolic blood pressure (SBP) and visceral fat in type 2 diabetes.

In LEAD-2, where either liraglutide, glimepiride or placebo was added to

metformin, the reductions in SBP by study end with both 1.2 and 1.8 mg/day doses of liraglutide were significantly greater than the change observed with glimepiride.

In LEAD-5, in which either liraglutide, insulin glargine or placebo was added to metformin and glimepiride therapy, the reduction observed was significant compared with the insulin glargine comparator group.

A subgroup analysis of LEAD-2 investigated the effects of the agent on body composition. Reduction in body weight observed with liraglutide was primarily as a result of a reduction in fat rather than lean tissue. Furthermore, reductions in both central-body visceral and central-body subcutaneous fat were significantly greater with liraglutide than with glimepiride.

Drugs prescribed too easily in people with diabetes

New research presented at the conference suggests that one in three people with type 2 diabetes are being prescribed medication too readily after diagnosis, without giving healthy lifestyle interventions a chance.

Results of the Diabetes UK-funded study of 652 people newly diagnosed with type 2 diabetes showed that 36% of participants were prescribed diabetes tablets within a month of diagnosis.

This runs counter to recommendations from NICE, which recommends lifestyle management alone for all people with

type 2 diabetes for a period of time before commencing medication.

Simon O'Neill, Director of Care, Information and Advocacy at Diabetes UK, said: "Diabetes UK is concerned that in some cases, medication is the first port of call."

Commenting on her work, Catherine Thompson, lead researcher and Diabetes Specialist Nurse at Bristol University, said: "Our research shows a worrying reliance on drugs, which could negatively influence people's perception of the importance or need for lifestyle management."

Reduced risk of hypoglycaemia with insulin glargine

Results of a meta-analysis presented at the conference suggest that the risk of hypoglycaemia is reduced in people with type 2 diabetes managed with insulin glargine.

The meta-analysis used individual patient data from five studies comparing once-daily insulin glargine with neutral protamine Hagedorn (NPH)

insulin to assess risk of hypoglycaemia in 2711 people with type 2 diabetes.

Once-daily insulin glargine showed a significantly lower risk of all types of nocturnal hypoglycaemia compared with NPH insulin. Overall, the risk of nocturnal hypoglycaemia in people treated with insulin glargine was halved

compared with those treated with NPH insulin. The findings are consistent with those of other meta-analyses.

Fear of hypoglycaemia can delay insulin initiation and prevent adequate blood glucose control. Nocturnal hypoglycaemia is particularly feared because it often goes unrecognised.