Meetings

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Rimonabant's effect in diabetes is independent of weight loss

The novel drug rimonabant exerts direct metabolic effects on type 2 diabetes independent of weight loss, according to the first results from the Rimonabant In Obesity (RIO)-Diabetes trial.

Presenting the results at the *ADA Scientific Sessions*, lead investigator Professor André Scheen said: 'The findings in all aspects of the trial, especially in glycemic control and improvement in the lipid profile, were impressive.'

'These results were explained, in part, by weight loss and were, in part, independent of weight loss, suggesting that rimonabant may exert direct metabolic effects in type 2 diabetes and offer an approach to managing type 2 diabetes that addresses the multiple cardiometabolic risk factors common in obese patients,' added Professor Scheen.

The 1-year RIO-Diabetes trial randomised 1045 monotherapy-treated overweight or obese people with type 2 diabetes to placebo (n=348), rimonabant 5 mg (n=358) or rimonabant 20 mg (n=339) once daily. All patients were on a mild hypocaloric diet throughout the study.

Dr Colin Kenny, Chair of the Primary Care Diabetes Society, said: 'GPs should be confident to use rimonabant in overweight type 2 diabetes patients based on these results. In a target-driven culture, it offers a new approach to improving HbA_{1c} levels.'

Sanofi-Aventis has applied for a marketing licence for rimonabant (Acomplia) in Europe and the US.

Metformin is safe and effective in pregnancy, agree experts

A group of experts speaking at a symposium at the *ADA Scientific Sessions* agreed that the use of metformin in pregnant women with diabetes is safe and effective.

Among the speakers was Dr Clifford Bailey, who said that while metformin crosses the placental barrier and is found in breast milk, there is no evidence of teratogenicity in the foetus or embryo.

In terms of effectiveness, Dr Janet Rowan stated that metformin prevents foetal hyperinsulinaemia and reduces insulin resistance in the mother, while resulting in less weight gain than insulin.

HbA_{1c} targets reached by most biphasic insulin aspart users

Using biphasic insulin aspart (NovoLog Mix 70/30 [NovoMix 30 in the UK]; Novo Nordisk) enables most people with type 2 diabetes to reach glycaemic targets, according to results from the 1-2-3 Study.

After 16 weeks of once-daily dosing, 21 % of participants had reached HbA_{1c} ≤6.5 % (the International Diabetes Federation [IDF] target) while the remainder switched to twice-daily dosing. At 32 weeks, 52 % had reached the target, while the remaining individuals again had their dose frequency increased, this time to three times daily. By the end of the study (48 weeks), 60 % had reached the IDF target.

'These results are particularly encouraging for patients who are inadequately treated with [oral antidiabetic drugs],' commented Dr Alan Garber, lead investigator and Professor of Medicine, Biochemistry and Cell Biology at Baylor College of Medicine, Texas.

Exenatide linked to weight loss and improved glycaemic control

Findings presented at the *ADA Scientific Sessions* linked exenatide injection (Byetta; Amylin and Eli Lilly) to sustained improvements in glycaemic control as well as progressive weight reduction. The study treatment combined exenatide with metformin, a sulphonylurea or both of these oral antidiabetic drugs.

Exenatide is the first in a new class of type 2 diabetes drugs called 'insulin mimetics', which are given their name because they exhibit many of the same effects as the human incretin hormone glucagon-like peptide-1 (GLP-1). These effects, which are seen in several of the body's organs, work together in the regulation of blood glucose.

The trial was conducted over 82 weeks in 265 people with type 2 diabetes who had failed to achieve acceptable glycaemic control on metformin, a sulphonylurea or both. An average reduction in HbA_{1c} of 1.2 % was recorded, along with an average weight reduction of 4.6 kg. Improvements in cardiovascular risk factors such as HDL-cholesterol and triglyceride levels were also noted.

Higher atorvastatin doses reduce CHD risks further

New data from the Treating to New Targets (TNT) study suggest that treating patients with confirmed coronary heart disease to below current cholesterol target levels significantly reduces deaths from heart attacks and strokes.

The TNT study treated 15 400 people (of whom 1500 had diabetes) with marginally elevated LDL-cholesterol (<3.34 mmol/l) using atorvastatin 10 mg/day or 80 mg/day.

Compared with those treated with 10 mg atorvastatin, the 80 mg treated group had a reduction in major cardiovascular events of 22 % (25 % for the sub-group with diabetes) after 5 years. The patients treated with the higher dose also benefited from a 25 % reduction of stroke.

The sub-group with diabetes treated with 80 mg atorvastatin successfully lowered their LDL-cholesterol to 1.86 mmol/l, compared with 2.54 mmol/l for those on 10 mg.

'These data are the first to demonstrate the CV benefits of lowering LDL-C beyond recommended guidelines with atorvastatin 80 mg in this high-risk diabetic population. Moreover, patients achieved these results without additional muscle risks,' said Professor James Shepherd, one of the study investigators, from the University of Glasgow. The musculoskeletal profile of atorvastatin 80 mg was comparable to that of atorvastatin 10 mg.

Further evidence shows CV benefits with rosiglitazone

Research presented at the *ADA Scientific Sessions* indicates that rosiglitazone (Avandia; GlaxoSmithKline) helps reduce blood pressure in people with type 2 diabetes. It also suggests that a combination of rosiglitazone with metformin (Avandamet; GlaxoSmithKline) has positive effects on microalbuminuria – a marker of diabetic renal disease – and increased cardiovascular risk.

Combination therapy with rosiglitazone plus metformin or a sulphonylurea showed a sustained reduction in blood pressure, in people with type 2 diabetes, when compared with metformin/sulphonylurea combination. In a second study, rosiglitazone/metformin combination therapy reduced urinary albumin excretion and blood pressure in people with type 2 diabetes.

'Cardiovascular disease and diabetic renal disease are major causes of mortality and morbidity associated with type 2 diabetes. [The research presents] evidence of the positive effects of rosiglitazone combination therapy on both blood pressure and microalbuminuria, independent of its effects on blood glucose, which may all impact on the burden of micro- and macrovascular complications in type 2 diabetes patients,' said David Levy, Senior Lecturer in Diabetes, Whipps Cross University Hospital, London.

Insulin can be initiated effectively in primary care

Insulin for type 2 diabetes patients can be initiated and titrated effectively and safely in primary care, a new study claims.

Results from the At.LANTUS study show that rates of symptomatic hypoglycaemia were lower in GP-treated patients compared to hospital-treated patients (20.9 % versus 32.5 %; $P<0.001$). Severe (0.9 % versus 1 %) and nocturnal (4.2 % versus 3.3 %) rates of hypoglycaemia were comparable in the GP-treated and hospital-treated groups, respectively.

Dr Colin Kenny, Chair of the Primary Care Diabetes Society, said, 'These results are interesting in the context of the current drive to set lower targets for HbA_{1c} in the Quality and Outcomes Framework and to increase primary care commissioning of diabetes services. More initiation of insulin in primary care is inevitable.'

At.LANTUS was a 24-week, open-label trial in 4961 people with type 2 diabetes on any antidiabetic treatment but with poorly controlled HbA_{1c} (>7.0 %). Patients were randomised to receive daily, long-acting insulin glargine (Lantus, Sanofi-Aventis) titrated by a doctor or by the patient. GPs and secondary care doctors decided on dose adjustments at weekly patient visits. Patients chose whether to up-titrate insulin once every 3 days. A significantly greater decrease in HbA_{1c} and fasting blood glucose levels was found in the self-management group.

The results, based on 820 patients managed by GPs (n=215) or hospital doctors (n=605) in the UK, showed that fasting blood glucose (110 mg/dl [5.5 mmol/l] versus 114 mg/dl [5.7 mmol/l]) and HbA_{1c} levels (8.3 % versus 8.2 %) were comparable in the two groups, respectively.

Palm readings are equivalent to fingertip tests for blood glucose

Palm testing for blood glucose levels is equivalent to fingertip testing, according to research presented at the *ADA Scientific Sessions*. The results, which were obtained using the OneTouch Ultra meter (LifeScan), held for both steady and dynamic glycaemic states.

The palm has fewer pain receptors than fingertips and it is conceivable that the associated reduction in discomfort could lead to increased self-monitoring. Testing at other sites with fewer pain receptors than fingertips (such as the forearm or thigh) has previously been suggested, but differences in local circulatory physiology mean that the tests are not equivalent during dynamic glycaemic conditions, say the researchers.