Meetings Round-Up

Niaspan plus statin therapy reduces atherosclerotic progression

Preliminary results of the ARterial Biology for the Investigation of the Treatment Effects of Reducing cholesterol (ARBITER 2) study were presented in November at the 2004 American Heart Association (AHA) scientific congress in New Orleans, USA. Progression of atherosclerosis was halted or greatly slowed by combining Niaspan (prolonged-release nicotinic acid) with statin therapy. High density lipoprotein cholesterol (HDL-C) levels were significantly increased (p=0.002).

The benefit of increasing HDL-C levels in slowing atherosclerosis progression is well known and nicotinic acid is a well-established treatment. This is the first study, however, to show its effect on the carotid intima medial thickness (a measure of atherosclerosis progression) when in combination with a statin. The group taking placebo plus a statin had a significant increase in carotid intima medial thickness (p<0.001) compared to those on 1000 mg Niaspan plus statin (p<0.23); the addition of Niaspan showed a 68 % reduction in atherosclerosis progression.

There was a trend towards a reduction in cardiovascular events in those on the statin/Niaspan combination, although this study was not powered to show differences in cardiovascular endpoints.

A meta-analysis on 17 landmark clinical trails also presented at the AHA congress provided further evidence that raising HDL-C levels in the blood may play a greater role in heart disease prevention than previously thought. Analysis of data from the 44 000 patients in the trials demonstrated a direct link between increased HDL-C levels and reduced risk of heart attack.

DEFINing diabetes: addressing the type 2 diabetes burden

At a meeting on 9th November, a panel of experts called for action to address the escalating burden of type 2 diabetes at the launch of the DEFINe (Diabetes: Evaluating Future Impact Now) Dossier. Academic experts, multidisciplinary healthcare professionals and the National Obesity Forum collaborated in the development of the dossier, which is backed by knowledge and opinion canvassed from 8000 members of the public and almost 600 UK healthcare professionals.

The dossier illustrates the need for a change in the way type 2 diabetes is managed in order to reduce its future impact. This should be by targeting insulin resistance – a major underlying cause of type 2 diabetes – by providing lifestyle advice and appropriate pharmacotherapy, concluded Professor Anthony Barnett.

Obesity and physical inactivity are major contributing factors in the development of insulin resistance. The adoption of an insulin-resistance-based approach to management of people with type 2 diabetes could reduce future complications and echoes recommendations by the Association of British Clinical Diabetologists to treat patients with insulin sensitisers and improve cardiovascular risk factors – especially appropriate in obese patients.

Further research in the DEFINe Dossier reveals that 99 % of GPs think it is important to address insulin resistance and 86 % rank prevention of complications as their number one priority.

DIGAMI 2 confirms importance of glucose level in predicting mortality

The researchers of the DIGAMI 2 (Diabetes mellitus Insulin Glucose infusion in Acute Myocardial Infarction 2) study of patients with type 2 diabetes and myocardial infarction (MI) confirmed that glucose level is a strong, independent predictor of long-term mortality. The results were unveiled at the recent European Association for the Study of Diabetes (EASD) meeting in Munich.

More than 1200 type 2 patients admitted due to suspected MI were randomised to receive one of three management protocols: 1) acute insulin-glucose infusion followed by insulin-based long-term glucose management; 2) insulin-glucose infusion followed by standard glucose control (i.e. no insulin); and 3) routine metabolic management according to local practice.

The primary endpoint was all-cause mortality between groups 1 and 2 according to intention-to-treat analysis, while mortality differences between groups 2 and 3 and morbidity differences served as secondary and tertiary endpoints, respectively. The mean time of follow-up was about two years.

Researchers found no statistical differences between the groups in terms of mortality, stroke, or second acute MI. The trial did not support the primary hypothesis that an acutely introduced, long-term intensive insulin treatment strategy improves survival, nor the secondary hypothesis that initiation of treatment with an insulin-glucose infusion is superior to conventional management.

However, the researchers noted that overall mortality was lower than expected and that the three glucose management strategies did not result in significant differences in metabolic control. While DIGAMI 2 did not show that metformin increased survival, concomitant treatment with statins and beta-blockers was beneficial.

Exenatide offers benefits in glucose control and weight loss

Results from several studies involving the incretin mimetic exenatide were presented at the recent EASD annual meeting which demonstrate multiple benefits for patients with type 2 diabetes, including improved glucose control, weight loss and restored insulin response.

The Gila monster
(Credit: Dr Mark Seward)

Exenatide is one of a new range of drugs with glucagon-like peptide 1 (GLP-1) properties, which is being studied as a treatment for type 2 diabetes patients who are not taking insulin, but whose condition has not been well-controlled by oral medication.

Phase III study results reported that exenatide lowered average HbA_{1c} levels and resulted in a reduction in average patient body weight. Data from the open-label extension period showed these effects were sustained at one year.

Exenatide is a synthetic form of exendin-4, a hormone discovered in the venom of a large reptile called the Gila monster.