



A Field of Opportunities for Diabetic Patients

Results from the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study has shown that treatment with fenofibrate helps in the prevention of cardiovascular disease in diabetics.

The local medical fraternity is estimating that there will be at least 2.48 million adults with Type-2 diabetics by the year 2030. As alarming as this figure is, it is not the worst part of the disease. The consequences of uncontrolled diabetes are severe – blindness, kidney failure, increased risk of heart disease and painful peripheral nerve damage.

Patients with Type-2 diabetes are more likely to have a 50% increased heart-risk than their non-diabetic counterparts to suffer stroke, myocardial infarction and heart failure. They also face a three to four fold higher risk of cardiovascular disease and mortality. Early intervention to control blood glucose levels and other risk factors has shown to be able to reduce the severity of the condition.

As such, it is indeed timely that studies such as the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) has produced conclusive results proving that long-term lipid-lowering therapy using fenofibrate is able to reduce macro vascular and micro vascular outcomes in Type-2 diabetes.

As fenofibrate belongs to a class of lipid modifying agents called fibrates, it is highly effective in the management of lipid levels. It therefore assists to decrease bad cholesterol (Low-Density-Lipoprotein) and triglycerides in the blood while simultaneously increasing the good cholesterol (High-Density-Lipoprotein).

Lead investigator of the FIELD study, Professor Anthony Keech of the NHMRC Clinical Trials Centre, University of Sydney, Australia shared that FIELD is the largest intervention study conducted for the prevention of cardiovascular disease in diabetics and that patients treated with fenofibrate showed a significant reduction in total cardiovascular events.

The findings also showed a beneficial effect of fenofibrate on micro vascular complications associated with diabetes, specifically renal and eye disease. This is the first time that a lipid-lowering

agent has been shown to reduce both the risk of macro vascular and micro vascular events in a large-scale clinical study in patients with type-2 diabetes.

'The FIELD study has shown that treatment with fenofibrate has promising effects in attenuating the progression of micro vascular complications of diabetes – particularly loss of vision and amputation,' said Professor Keech.

'For the first time, we have shown that a widely available lipid modifying agent, fenofibrate, reduces the complications of retinopathy – the major cause of impaired vision in adults in the industrialised world.'

The positive results for both macro and micro vascular complications are especially important for a country like Malaysia due to the increasing number of diabetics in the country. According to the National Health and Morbidity Survey 2006, 14.9% of the adult Malaysian population suffer from diabetes.

Prof Keech also explained that while the main aim of the FIELD study was to see if *fenofibrate* could reduce cardiovascular morbidity in patients with Type-2 diabetes, studies were also done to explore its effects on micro vascular complications.

'Micro vascular complications associated with Type-2 diabetes specifically retinopathy, nephropathy and neuropathy are associated with significant morbidity and they substantially impair the quality of life of patients.'

Currently, diabetic retinopathy is the most common cause of blindness in developed countries. It is responsible for over 80% blindness in diabetics and affects up to 50 million or 25% of the 200 million worldwide.

The professor also said that subsequent need for

total laser therapy for the patients involved in the sub-study was almost halved. It is now hoped that *fenofibrate* can be used to significantly reduce the progression of retinopathy before it requires laser treatment.

Discussing the implications of these results, he said that micro vascular benefits of *fenofibrate* – in the eye, the limbs and the kidney – combined with the reduction in overall cardiovascular events, means that *fenofibrate* offers an important opportunity to protect patients from the most serious consequences of Type-2 diabetes.

Diabetic patients are often required to go through a lifestyle modification to continue to provide them with high quality of life. At the same time, education and knowledge regarding the various modes of treatment for diabetes is essential.

Professor Keech is of the opinion that while the doctor has a responsibility to treat and maintain the health of the patient, the patient has a responsibility to be informed about the latest treatment options available.

'Thanks in large to the FIELD study, patients with Type-2 diabetes can reduce their risk of macro and micro vascular events. Looking at the benefits, doctors and patients can now consider *fenofibrate* as a possible form of treatment, even for those on statins, which only lowers cholesterol levels and does not protect the eye, kidneys and limbs,' he added.

The FIELD study is a double-blind, randomised, placebo-controlled study conducted on 9,795 patients aged between 50 and 75 years with Type-2 diabetes in 63 clinical centres in Australia, New Zealand and Finland. Of this number, 1,012 participants (10.3% of the whole study population) were recruited to participate in the sub-study on diabetic eye complications.

Patients were on treatment for a median of five years and evaluated for the effect of micronised fenofibrate once daily versus placebo on coronary heart and cardiovascular disease in patients with Type-2 diabetes. Participants were evaluated every six months for outcome events and safety assessments. ❖

References

1. Results of the largest clinical trial in type-2 diabetes patients demonstrating positive effects of fenofibrate therapy on cardiovascular events (<http://www.medicalnewstoday.com>)
2. Fenofibrate Intervention and Event Lowering in Diabetes (presentation by Professor Anthony Keech)
3. 2006 Malaysian National Health and Morbidity Survey