

The study has been published in the September 2010 edition of the *Diabetes Care* journal

## Diabetics in the south of Europe have less cardiovascular diseases than patients who have already had a heart attack

> *Type 2 diabetes is a heart risk factor, along with other factors such as lipid profile, hypertension and obesity.*

> *Some studies put the cardiovascular mortality risk in diabetic patients on a par with that presented by non-diabetics who have had a first myocardial infarction.*

> *For the first time ever, it has been shown that this is not the case in the south of Europe.*

**Barcelona, 8 September 2010.-** Researchers from the IMIM (Hospital del Mar Research Institute), together with endocrinologists from the Hospital del Mar, have established that people with type 2 diabetes (adult diabetes) have less long-term cardiovascular incidents than patients who have had a first myocardial infarction. This study took into account the treatment type, the length of time the patient has been suffering from diabetes as well as the glucose control situation.

The prevalence of diabetes is reaching epidemic proportions in developed countries. Spain has over two million diabetic patients and managing the disease costs over €2,600 million per year. Some studies have suggested that the cardiovascular risk in patients with type 2 diabetes is similar to that of patients who have had a first myocardial infarction. Until now, however, determining factors in this prognosis had not been taken into account, namely the incidence of heart disease per geographical area, the period over which the diabetes has been evolving and the treatment needed to achieve adequate glucose control.

There are considerable clinical and economic consequences attached to regarding diabetic patients, who represent over 10% of the adult population of developed countries, as high-risk cardiovascular patients. According to Jaume Marrugat, director of the IMIM Cardiovascular and Inflammatory Disorders Research Programme, ***“Secondary preventive measures should assess the cost-benefit/effectiveness ratio of established treatments, especially in regions like ours, where cardiovascular disease has a lower mortality than in other countries”***.

The researchers performed a prospective epidemiological study with a follow-up period of ten years. The study was performed on a cohort of 4,410 patients aged from 30 to 74 years, 2,260 of whom were affected by type 2 diabetes without heart disease, coming from 53 of our country's primary healthcare centres participating in the study conducted by GEDAPS (*Grupo de Estudio de la Diabetes en Atención Primaria*, Study Group for Diabetes in Primary Healthcare) and a further 2,150 patients coming from 10 hospitals taking part in the study by

REGICOR (*Registro Gerundense del Corazón*, Girona Heart Register) who had survived a first myocardial infarction and did not have diabetes at the time of joining the study.

In both these patient populations, researchers compared the morbidity and mortality from coronary and cardiovascular disease which occurred over the observation period. The results showed that people with diabetes suffer about half the cardiovascular events suffered by patients with a history of myocardial infarction.

According to Dr. Juan Francisco Cano, Head of the Endocrinology and Nutrition Department at the Hospital del Mar and researcher for the IMIM vascular research group, ***“patient mortality increases with the duration of diabetes. Only a few years ago, insulin treatment was being added late on, after 10 years or more of the disease’s evolution. Good chronic glucose control also has vital influence on this evolution”***.

In relation to the duration of the disease, this study has found that there is a higher risk of developing cardiovascular disease at 8 years after the onset of diabetes, even though some authors put this threshold at 16 years, a figure which requires studies of a longer duration (25 years) in order to ascertain this point conclusively.

Given the fact that type 2 diabetes is increasing in developed countries, the authors believe that it is important to continue researching in this area and to adapt primary preventive measures to the specificities of each geographical area in order to make the healthcare system more rational, effective and sustainable.

## Reference Article

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