

BRIEF REPORT

Coronary heart disease incidence in diabetic patients, and its relationship to general risk factors

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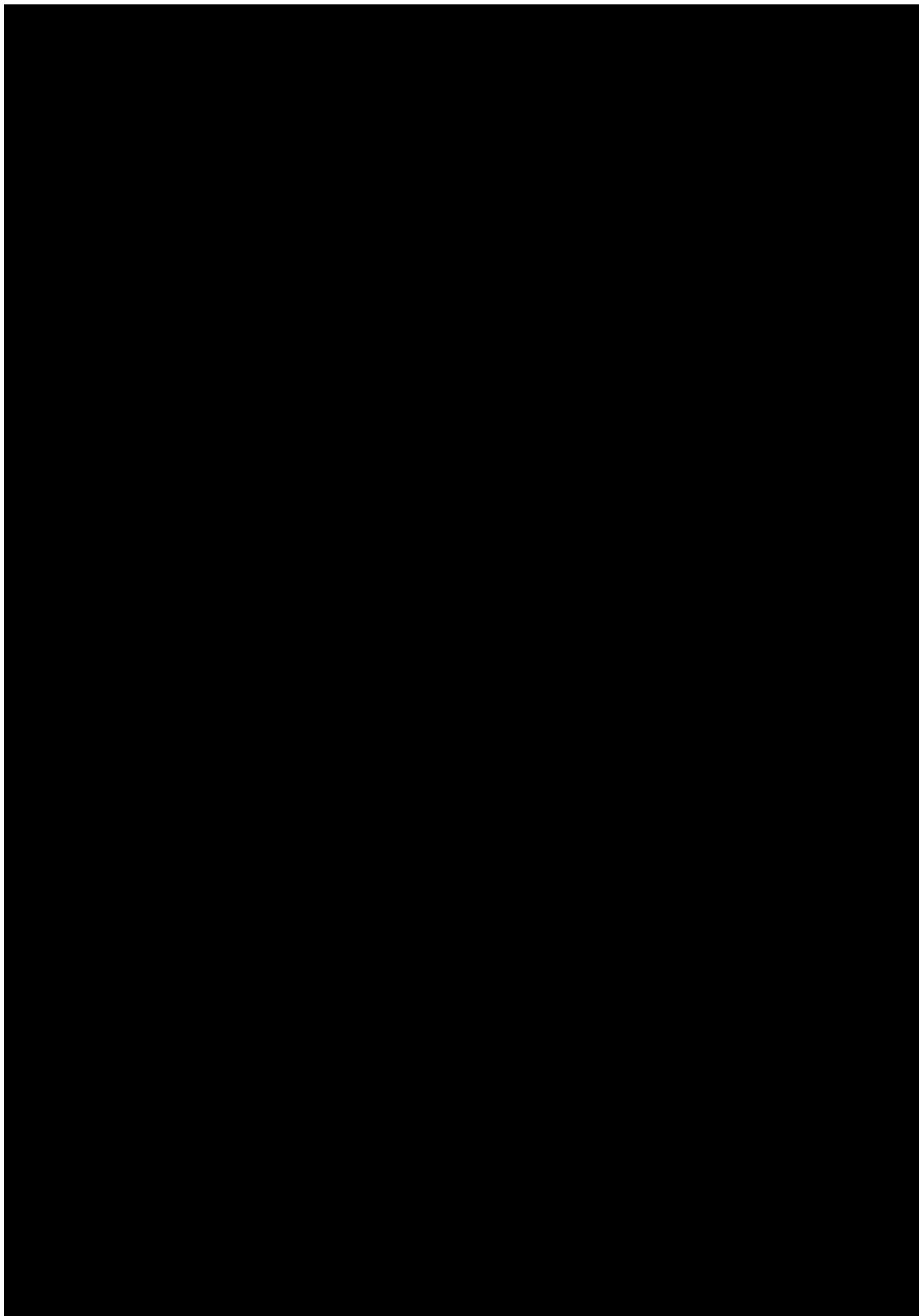
Abstract. The five-year incidence of coronary heart disease (CHD) was examined in middle-aged diabetics (54 insulin-dependent – IDDM, 152 non-insulin-dependent – NIDDM) and 105 controls. In comparison to the controls, CHD incidence was higher only in IDDM patients (11.5 vs 4.0%), but the

difference was not a significant one. CHD incidence cases in both IDDM and NIDDM groups were significantly related with longer duration of the disease and, when IDDM patients are concerned, with higher diastolic blood pressure.

Key words: Coronary heart disease, Insulin-dependent diabetes mellitus, Non-insulin-dependent diabetes mellitus, Risk factors

According to epidemiological and clinical studies, diabetic patients are at increased risk of premature coronary heart disease (CHD). The reasons for the higher risk have not been fully elucidated.

In the present work we analyze the relationship between cardiovascular risk factors and the five-year incidence of coronary heart disease in insulin-dependent diabetes mellitus (IDDM) and non-insulin-dependent diabetes mellitus (NIDDM) patients separately, as well as in a comparable group of non-diabetic control subjects. The study was performed in Kragujevac (town in Yugoslavia with about 120,000 inhabitants).



of diabetes in both IDDM and NIDDM groups, and between CHD and diastolic blood pressure in the IDDM group (Table 5). CHD incidence cases were too few to carry out a complete multivariate analysis but the adjustment made for every single CHD potential risk factor did not significantly affect either of these associations. In the control group none of the variables observed was significantly related to CHD.

The importance of high blood pressure in the occurrence of CHD is well known [5, 6]. The association between duration of diabetes and risk of CHD, when NIDDM is concerned, has been found only in a few studies. For example, in a diabetes study in Utah [7], duration of NIDDM was clearly related to the prevalence of macrovascular complications, with those having diabetes 15 or more years having an odds ratio of 5.97 as compared to those having diabetes less than five years. It has recently been hypothesized that in NIDDM the duration most likely to be related to CHD among hyperglycemic and diabetic persons is the (unknown) duration of hyperinsulinemia/insulin resistance, and not duration of diabetes per se [6].

When IDDM is concerned, according to Donahue

Significant univariate relationships were found between the five-year incidence of CHD and duration

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