S U M M A R Y

This study was designed to determine the incidence of latent ischaemia in diabetic patients with normal resting electrocardiograms, using maximal treadmill exercise testing, and to correlate the duration as well as the severity of diabetes to the presence of ischaemic manifestations in the stress electrocardiogram.

The clinical material on which this study was based consisted of two asymptomatic diabetic groups. The first, consisted ten recently discovered asymptomatic diabetic patients ,while the second consisted of ten old asymptomatic diabetics and twenty normal subjects were taken as control.

All had normal resting electrocardiograms. The three groups were subjected to maximum treadmill exercise test and to laboratory investigations by taking blood samples and estimating the fasting, post-prandial blood sugar level, serum high and low density lipoprotein cholesterol, serum uric acid and serum potassium. The control group was subjected to cortisone stress test to exclude latent diabetes.

There was no ischaemic electrocardiographic changes after the treadmill exercise test. Regarding the hemodynamic parameters in the treadmill test, there was a significant difference between the diabetic groups and the control group

egarding the duration of exercise with longer duration in he control, the maximum heart rate with higher values in the ontrols and the Δ Heart rate with higher values in the control. owever, there was no significant difference between the diabetic roups and the control group regarding the maximum systolic lood pressure and the Δ systolic blood pressure.

omparing the exercise tolerance in the recently discovered iabetic group and the old diabetic cases,there was no significant ifference regarding the duration of exercises, maximum heart ate, Δ heart rate, maximum systolic blood pressure, however significant difference was observed regarding the Δ systolic lood pressure with higher values in the old diabetic cases. here was no significant difference regarding serum uric acid, DL cholesterol level between the three groups, still a signif- cant difference regarding LDL cholesterol level with higher alue in cases with mild diabetes and lowest values in cases ith severe diabetes.

It is indicated from the study that asymptomatic diabetic atients have poor exercise tolerance when compared to the control, nd the low density lipoprotein cholesterol, high density ipoprotein cholesterol and serum uric acid have no relation o the severity of diabetes nor to the duration.

It is recommended for maturity onset asymptomatic iabetics that a yearly stress testing should be performed and henever any indication for more investigatory procedure sets in,

Echocardiography, radionuclide studies, coronary arteriography and / or left ventricular biopsy should be carried out.