

## INTRODUCTION AND AIM OF THE WORK

In patients with diabetes mellitus, morbidity and mortality rate are strikingly increased as a result of both macro-and microvascular disease with subsequent thromboembolic manifestations. These disorders associated with diabetic syndrome are undoubtedly multifactorial in origin and might be related to alterations in the platelets, fluid phase of coagulation, lipid metabolism, blood pressure and vascular metabolism. (*Reaven and Steiner, 1981, Jones and Peterson, 1984*).

Insulin-dependent diabetics who develop clinical proteinuria have a much greater risk of premature death from cardiovascular complications than those without proteinuria (*Winocour et al., 1987*). A subclinical increase in urinary excretion of albumin (microalbuminuria) predicts the development of persistent clinical proteinuria and renal failure in insulin-dependent diabetics (*Viberti, et al., 1982 and Mogensen et al., 1984*). At the stage of clinical proteinuria and progressive renal failure, haemorrhagic changes (*Kwaan et al., 1972*), Changes in plasma lipoprotein concentration (*Vannini et al., 1984*) and an increase in blood pressure (*Winocour et al., 1987*) have been proposed as contributing to the increased cardiovascular risk.

There have been many studies on the coagulation factor levels in the plasma of diabetic patients. An increased levels of F VIII and F VIII vwf (*Collar et al., 1978*), F XII and XI (*Egeberg 1983*),

fibrinogen (*Sing et al.*, 1982, *krzywanek et al.*, 1984) were reported in diabetics especially those with microangiopathy. Fibrinolytic activity was shown also to be depressed by many investigators. (*Egeberg 1963*, *Fuller et al.*, 1979 and *Singh et al.*, 1982). *Ceriollo et al.*, 1990, reported that induced-hyperglycaemia in diabetic and normal subjects decreased antithrombin III activity while anti-thrombin III concentration did not change.

The aim of the present work is the study of some coagulation factor levels determination, lipid profile and albuminuria in insulin-dependent diabetics in a trial to find out any biochemical changes that might contribute to macro-and micro-vascular disease in such patients.