study of anthhrombin III activity in diabetic patients

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This study was carried on 40 diabetic patients in addition to 10 subjects as a control group, all subjects were divided into:Group I: includes 10 well cross matched healthy volunteers.Group II: includes 10 controlled NIDDM patients.Group III: includes 10 uncontrolled NIDDM patients.Group IV: includes 10 controlled IDDM patientsGroup V: includes 10 uncontrolled IDDM patients.Evry individual in the previous groups were subjected to the following:- Through history taking to exclude presence of any factor that may affect AT III activity.- Laboratony investigations:(1)Fasting and 2 hours post-prandial blood glucose.(2)Glycosylated haemoglobin level.(3)Anti-thrombin III activity.The following had been reported in this work:- There was a significant difference of F.B.S, P.P.B.S. and Glycosylated HB in diabetic patiens as compared with the control group. And there is a significant reduction of AT III activity in diabetic patients as compared with the control group.- There was no significant difference of F.B.S., P.P.B.S. & AT III activity between the control group (GP I) and controlled NIDDM group (GP II), but there was a significant difference of glycosylated HB between GP I & GP. II.- There was a significant difference of F.B.S., P.P.B.S., Glyco HB & AT III activity between the control group (GP I) and uncontrolled NIDDM group (GPM).- There was no significant difference of F.B.S., P.P.B.S. and AT III activity between the control group (GP I) and controlled IDDM group (GP IV) but there was a significant difference of Glyco HB between GP I and GP IV.-There was a significant difference of F.B.S, P.P.B.S., Glyco HB and AT III activity between GP I and GP V (uncontrolled IDDM group).- There was no significant difference of AT III activity between NIDDM patients & IDDM patients.-There was a significant difference of AT III activity between diabetic patients with vascular complications & diabetic patients without vascular complications.-There was a significant negative correlation between AT III activity and F.B.S., P.P.B.S. and glycosylated HB, but there was no significant correlation between AT III activity and duration of D.M within diabetic patients (NIDDM and IDDM patients).So we can conclude that the decisive factor affecting AT III activity in D.M. is the state of diabetic control rather than the duration of diabetes, so maintenance of nearnormoglycemia should be the main target in management of diabetes which could prevent or at least ameliorate many of the short-term and long term conplications of diabetes.