Serum lp (A)lipoprotein concentration in type Idiabetics with Micro Albuminuria

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In the present work we study lipoprotein patterns in insulin dependentdiabetic patients with and without microalbuminuria in a trial to find out therelation between lipoproteins including Lp(a) and diabetic nephropathy.This study included 40 subjects they were cartegorized into three maingroups:Group I: 10 Healthy normal controlsGroup II: 15 IDDM patients without microalbuminuriaGroup III: 15 IDDM patients with microalbuminuriaPatients and controls were of the same age group and were subjected tothe following:-- Careful history and clinical examination .• Fundus examination to exclude diabetic retinopathy .• The following laboratory investigations1. Complete urine analysis.2. Detection of microalbuminuria3. Fasting and postprandial serum glucose.4. Serum total cholesterolS. Serum triglycerides.6. Serum HDLc.7. Serum LDLc.8. Serum VLDLc.9. Serum Lp(a).Tile results of tilis work revealed:-1. The mean plasma triglycerides levels in diabetics with microalbuminuria issignificantly higher than that of both the control group and diabetics withoutmicroalbuminuria.2. The mean plasma VLDLc levels in diabetics with microalbuminuria issignificantly higher than that of both the controls and diabetics withoutmicroalbuminuria.3. The mean plasma Lp(a) levels in diabetics without microalbuminuria issignificantly higher than that of the control group. Moreover, the mean plasmaLp(a) levels in diabetics with microalbuminuria is significantly higher thanthat of both the controls and diabetics without microalbuminuria.4. Significant positive correlation between serum Lp(a) and fasting serumglucose, postprandial glucose, total cholesterol, and LDLc, in diabetics withand without microalbuminuria.As an increased plasma concentration of Lp(a) is strongly correlated withthe risk ofCHD, finding of higher level ofLp(a) in microalbuminuric patientsmay be important in understanding the increased prevalence of CHD indiabetic patients with nephropathy.So elevated levels of Lp(a) independent of other plasma lipoproteins canbe used as an early marker for the development of diabetic nephropathy as itincreases in patients with IDDM without microalbuminuria more than thecontrol and higher levels were detected in microalbuminuric patients inspiteof good control of the diabetic state and non significant changes in the otherlipoprotein patterns.