



"dissertation abstract"

<b>COLLEGE: Central library</b>	<b>DEPARTMENT: Clinical Pathology</b>	<b>CALL NO:</b>
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**DISSERTAION TITLE:**  
**Transforming Growth Factor-beta 1 in Diabetic Nephropathy**  
**DISSERTAION ABSTRACT (ONE PAGE A4)**

Renal failure is a common complications of diabetes mellitus due to presence of the common microvascular complication i.e. diabetic nephropathy.

Since TGF- $\beta$  is a cytokine that plays an important role in development of tissue fibrosis. So, the aim of the present study was to evaluate the state of serum TGF- $\beta$  in patients with various stages of diabetic nephropathy and to study its possible relationships with various biochemical parameters.

The study included 30 patients with diabetic nephropathy (group I) which include 20 patients with microalbuminuria (subgroup IA) and 10 patients with macroalbuminuria (subgroup IB). They were compared with 19 diabetic patients without nephropathy (group II) and 20 healthy volunteers (group III) who represented the control group.

The present study showed that serum level of TGF- $\beta_1$  was statistically significantly higher in patients with diabetic nephropathy versus diabetic patients without nephropathy and the control group. Also, serum level of TGF- $\beta_1$  was significantly statistically higher in patients with macroalbuminuria than those with microalbuminuria.

Serum level of TGF- $\beta_1$  was significantly statistically higher in diabetic patients with renal impairment than those without renal impairment.

Strong positive correlations were found between serum TGF- $\beta_1$  and each of the following albumin excretion rate, fasting post prandial blood glucose levels, serum cholesterol and HbA<sub>1c</sub>. these correlations were only found in diabetic patients with nephropathy but not in those without nephropathy or the control group.

We conclude that serum TGF- $\beta_1$  is elevated in diabetic patients with various stages of diabetic nephropathy especially those with macroalbuminuria and renal impairment. Serum TGF- $\beta_1$  may play a key role in the pathogenesis and progression of diabetic nephropathy. Hyperglycemia and poor glycemic control, together with hyperlipidemia of diabetes could be the direct triggering factors for increasing TGF- $\beta_1$  production in patents with diabetic nephropathy. We support that therapeutic strategies aiming to decrease TGF- $\beta_1$  may prevent the development or delay the progression of nephropathy in diabetic patients.

Key words: (not more than Ten).....:

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