

## ***Introduction***

Diabetes is a group of metabolic diseases characterized by chronic hyperglycemia resulting from defects in insulin secretion , insulin action or both ( *peter , 1994* ) .

The basis of the abnormalities in carbohydrate , fat, protein metabolism in diabetes is deficient action of insulin on target tissues which results from inadequate insulin secretion and or diminished tissue responses to insulin at one or more points of the complex pathways of hormone ( *Klein , 1999* ) .

Diabetes is characterized by many complications . The most important complications are the vascular ones in the form of microangiopathy & atherosclerotic changes such as retinopathy , cerebral stroke, nephropathy , neuropathy & coronary heart disease ( *Sherwin et al. , 2000* ) .

E-selectin is a member of the selectin family of cell adhesion molecules , which are cell surface proteins involved in the binding of cells , usually binding of leucocytes to each other , to endothelial cells or to extracellular matrix .Cytokines and chemokins produced in response to inflammation , control the expression and activation of some of these adhesion molecules ( *Huang et al., 1997* ) .

The soluble form of E-selectin has been detected in blood from normal subjects , its level may be significantly increased in sera of patients with different inflammatory or malignant diseases , high levels may be associated with endothelial dysfunction ( *Gearing and Newman , 1993* ) .

In type 2 diabetes , increased urinary albumin excretion , endothelial dysfunction and chronic inflammation are interrelated processes that develop in parallel progress with time , & are strongly independently associated with trisk of death ( *Stehouwer et al ., 2002* ) .

Cell adhesion molecules ( CAMS ) have been subjected to many researches on type 2 diabetes . Increased serum levels of cell adhesion molecules may be generally pathognomonic for diabetic microangiopathic changes in diabetic patients ( *Kriglstien , 2001* ) .

Serum concentration of soluble adhesion molecules are related to degree of hyperglycemia and insulin resistance in patients with type 2 diabetes ( *Miyake et al ., 2002* ) .