

## Introduction

Glutamic acid Decarboxylase antibodies (GAD antibodies) were used as predictors of insulin dependent diabetes mellitus (IDDM) before clinical onset of disease (Tuomilehto et al., 1994). The sensitivity of the anti-GAD assay for predicting insulin dependent diabetes mellitus (IDDM) was 82.1 % and the specificity was 100 %. A positive test for autoantibodies to GAD might help in the early identification of insulin dependent diabetes mellitus (IDDM) (Beisher et al., 1995; Kawasaki et al., 1996, Mehta et al., 1996). Ceriollo et al (1996) suggested that metabolic control might participate in determining increased circulating ICAM-1 level in type II diabetic patients. Lampter et al (1992) reported that elevated ICAM-1 and E-Selectin levels occurred independently of ICA status and probably reflected ongoing immune response in recent onset IDDM patients and first degree relatives at risk for IDDM. Schmidt et al (1996) reported that a soluble form of VCAM-1 (Vascular Cell Adhesion Molecule-1= sVCAM-1) might be an indicator of ongoing cellular dysfunction in diabetes as well as a dynamic surrogate marker for the effectiveness of therapeutic intervention. Cominacini et al (1995) reported an increased E-Selectin concentration in patients with IDDM and NIDDM. ICAM-1 (Intercellular Adhesion Molecule-1) was found to be elevated only in patients with NIDDM. They found that plasma E-Selectin concentration was positively correlated with the glycosylated hemoglobin. They concluded that in diabetic patients the concentration of soluble adhesion molecules especially E-Selectin might be related to metabolic control. On the other hand, Steiner et al (1994) reported that the increase of soluble adhesion molecules E-Selectin and VCAM in type II diabetes mellitus appeared to be independent of glycemic control but might be related to concurrent hypertension and / or hypercholesterolemia.