Introduction

Hemodynamic and pathological studies demonstrate changes such as left ventricular dysfunction with filling abnormalities in diabetic heart usually asymptomatic unless congestive heart failure supervenes. ***(Fein et al., 1990)***

The underlying mechanisms of myocardial dysfunction are proposed to be multifactorial such as metabolic disturbances, myocardial fibrosis, microangiopathy, autonomic dysfunction ***(Fang et al., 2004)***

The development of myocardial dysfunction represents a major complication of diabetes. This condition is characterized by defects of contractile and relaxation functions in the absence of significant coronary artery disease**.** ***(Di Bello et al., 1995)***

Left ventricular (LV) diastolic dysfunction has been described as an early sign of diabetic cardiomyopathy preceding the systolic dysfunction ***(Cosson et al., 2003).***A worldwide survey showed that in 40% of the patients with diabetes and without known kidney disease, the levels of urinary albumin were in the microalbuminuric range. ***(Parving et al., 2006)***

Albuminuria is an early marker of diabetic nephropathy and has been shown to strongly predict future cardiovascular morbidity and mortality in patients with type 2 diabetes **(de Zeeuw et al., 2004)**. This is independent of conventional cardiovascular risk factors including age, arterial hypertension, and hypercholesterolemia ***(Mattock et al., 1992).***

The risk of CVD in patients with diabetes increased almost 10 fold when albuminuria rose from 10 to 30 mg/day**.**
(Hoy et al., 2001)

Although the pathophysiologic mechanism underlying this relationship has not been elucidated, it was suggested that generalized vascular damage might serve as a common pathogenetic mechanism linking albuminuria and premature atherosclerosis ***(Gerstein et al., 2001).***

This is supported by the findings of higher incidence of coronary and peripheral vascular disease in diabetic patients with microalbuminuria compared with those without microalbuminuria**.** ***(Cruickshank et al., 2002)***

Aim of the work

The aim of this work was to study the relationship between albuminuria and LV systolic and diastolic function in diabetic adults without overt heart diseases.