INTRODUCTION

Diastolic heart failure, final outcome of progressive diastolic dysfunction, accounts for approximately 30-50% of heart failure. **(Vasan et al, 1999)**.

Definitive diagnosis of diastolic heart failure requires:

1-Uneqivocal presence of symptoms and signs of heart failure,

2-Documentation of preserved left ventricular ejection fraction,

3-Direct evidence of left ventricular diastolic dysfunction. (The Task Force of Heart Failure of the European Society of Cardiology, 1995).

Heart failure in chronic renal failure may be caused by uncontrolled sodium retention and exaggerated by anemia, hypertension and other mediated disorders associated with uremia such as chronic elevation of PTH and catecholamine.

Uremic cardiomyopathy is heterogeneous (systolic and diastolic dysfunction) and multifactor. The term uremic is some what deceptive it suggests that all cardiac abnormalities are related to uremic toxicity Systolic LV dysfunction is more usually associated with dilated cardiomyopathy (low ejection fraction with increased diastolic LV diameter) ,where as diastolic dysfunction is more related to concentric LVH

LV diastolic dysfunction is the most prevalent functional abnormality found in uremic subjects 50-60% of patients , regardless of the treatment i.e. .haemodialysis ,peritoneal dialysis or even renal transplantation.

Routine use of cardiac catheterization gold standard for demonstrating left ventricular diastolic dysfunction is not feasible. Doppler echocardiography is the most valuable tool used in the clinical diagnosis and assessment of diastolic function. **(Nishimura et al, 1989).**

Left ventricular filling and pulmonary venous pulsed-Doppler flow indices have been used to evaluate different parameter of diastolic function including left ventricular filling pressure, relaxation, and stiffness. **(Garcia et al, 1998)**.On the other hand, interpretation of these

Doppler flow indices is often complicated by confounding effects of loading condition, ventricular relaxation, systolic function, and heart rate. **(Choong et al, 1998).**

Some investigators have suggested that objective measurements of left ventricular diastolic function serve to confirm rather than establish the diagnosis of diastolic heart failure. (**Zile et al, 2001**).

Tissue Doppler imaging (TDI) is an echocardiography methods developed in recent years to allow the analysis of regional myocardial and annular diastolic velocities .(**Nagueh** et **al,1997)**.Some of the previous studies have shown that in contrast to standard pulsed Doppler indexes of left ventricular filling, diastolic velocities of mitral annulus assessed by TDI are relatively preload independent. Other studies have given contradictory results. (**Firstenberg et al, 2001).**