INTRODUCTION

Hypertension is an important public health problem in developed countries and with changing life style and increasing longevity it is now a major cause of concern for health service providers in developing countries too. It is a common, asymptomatic, easily detectable, usually easily treatable disease yet, it leads to lethal complications as in majority it is either untreated or is partially treated.

Untreated hypertension increases the risk of vascular damage involving both small (resistance) arteries and arterioles and large (conduit) arteries. These lesions lead to cardiac, renal and cerebrovascular morbidity and mortality.

Although diastolic dysfunction is the earliest evidence of involvement of heart in hypertension. This is not pathognomonic of hypertensive heart disease, as similar changes may be present in aged persons or patients having coronary artery disease, unrelated to hypertension. Left ventricular hypertrophy (LVH) is therefore considered a hallmark of hypertensive heart disease, as systolic dysfunction usually appears late in course of disease. Patients with left ventricular hypertrophy have increased risk of angina pectoris, acute coronary syndrome, ventricular arrhythmias, sudden cardiac death (SCD) and congestive cardiac failure. Thus LVH emerged as
an independent risk factor for future adverse event, unrelated to stage of hypertension.

The other predictor of future adverse events like elevated systemic blood pressure, ejection fraction, fractional shortening is less sensitive. Regression of left ventricular hypertrophy occurs with treatment without deterioration in left ventricular performance. So there is a need to detect cardiac dysfunction in Hypertensive patients as early as possible.

Routinely employed chest-X ray or ECG cannot be used for assessment of left ventricular hypertrophy as they are less accurate and do not provide quantification of left ventricular mass. Angiocardiography is an accurate method of LVH assessment but its invasive nature and potentiality of complications, do not support its use in relatively benign condition like hypertension for left ventricular function estimation. In contrast, echocardiography provides a simple, safe, reproducible and accurate method and modality of choice to define left ventricular hypertrophy and dysfunction.

An early detection and prevention of LV dysfunction is an important goal in the management of hypertensive patient. A number of effective in-expensive anti-hypertensive agents are available for treatment of hypertension but an enigma remains for physicians in choosing/selecting best of these. Although there is definite indication
of specific anti-hypersensitive agent in specific condition/ co-morbidities associated with hypertension. In majority of hypertensive patients, there is no specific choice of anti-hypertensive agent. Probably in these patients the optional choice of anti-hypertensive agent is, that anti-hypertensive agent which not only controls hypertension effectively but also regresses/reduces the risk factors associated with it in form of cardiac dysfunction.