monthly interval for blood pressure and heart rate and proteinuria was assessed at six month.

Results: Both the groups were well matched in term of sex, age, and weight. Both cilnidipine and amlodipine significantly reduced both systolic and diastolic blood pressure. Pulse rate were higher in patient treated with amlodipine than the patient treated with cilnidipine. Cilnidipine decreased proteinuria which was not seen in patient on amlodipine.

Conclusion: Thus, study showed that cilnidipine which is Land N type calcium channel inhibitor is better than amlodipine which L type of calcium channel inhibitor in patient having cardiovascular disease, diabetes and renal disease and is better alternative to amlodipine.

### Effect of permanent pacing VVI mode in patients with complete heart block on central aortic pressure and stiffness


**Background:** Complete Heart Block (CHB) is a condition in which the impulse generated in the SA node does not propagate to the ventricles. Causes include coronary ischemia, idiopathic degeneration of AV node and others. Symptomatic patients were advised Permanent pacemaker insertion. Most have high blood pressure as per Marey’s law (1961).

**Aim:** To assess the effect of permanent pacing VVI mode in CHB patients on central systolic pressure, pulse pressure and arterial stiffness and to assess the effect of vasodilator therapy in reducing arterial stiffness in CHB patients on Permanent pacing VVI mode.

**Methods:** This study is a prospective analytical study done in Department of Cardiology at single-centre tertiary care hospital setting from January 2014 to July 2014. 18 consecutive patients with CHB before and after permanent pacemaker (VVI mode) insertion were included. Baseline characteristics like Brachial Systolic Blood Pressure (SBP), Central SBP, Central pulse pressure (PP), Augmentation pressure (AP), Augmentation Index (AI) and Heart Rate were measured before and 10 days after pacemaker insertion. Brachial SBP was measured with Sphygmomanometer and Central Pressure and stiffness measured using Sphygmcoc device (Excel) which derives central parameters by FDA approved transfer function. Data were presented as mean ± 1SD and the characteristics were compared using t test. A p value of less than 0.05 was considered statistically significant. Diabetic patients were excluded from study.

**Results:** Out of 18 Patients, mean age was 59yrs (lowest 27yrs and highest 80yrs), 11 were males and 7 were females.

**Conclusion:** Insertion of Permanent Pacemaker Insertion VVI mode shows significance reduction in Central systolic pressure and arterial stiffness. Based on Central Blood Pressure and Arterial stiffness assessment some patient needed vasodilators to reduce arterial stiffness after Permanent pacing.

### Use of angiotensin receptor blockers for the treatment of hypertension in India

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**Background:** ARBs have been included as a first-line therapy in JNC 8. Additionally, the 2014 ASH/ISH guidelines recommend that ARBs should be preferred over ACE-I if they are available and affordable as they do not cause cough and only rarely cause angioedema, and have effects and benefits similar to ACE-I. Currently there is a dearth of data regarding the use of ARBs as monotherapy or combination therapy for the treatment of hypertension in India.

**Methods:** A prescription research survey was conducted amongst physicians in India to obtain insights about the use of ARBs and their combinations in clinical practice. The study was conducted through a survey questionnaire consisting questions on use of ARBs as an antihypertensive, including preferences of molecules amongst the ARBs and the combinations of ARBs used for the management of hypertension with/without comorbid conditions.

**Results:** The survey questionnaire was answered by 409 physicians. ARBs are preferred as the first-line antihypertensive in
The effect of smoking on microalbuminuria in hypertensive patients

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Background: Microalbuminuria is a powerful predictor of cardiovascular events and is considered as target organ damage in patients with essential hypertension. The purpose of the present study was to explore the effect of current smoking on microalbumin excretion in patients with essential hypertension.

Methods: The study comprised 200 consecutive patients with essential hypertension who visited our outpatient clinic from 2013 to 2014. All patients underwent full clinical, laboratory and screening evaluation. Patients under treatment followed a washout period at least for 15 days. All subjects underwent a 24-hour urine sample collection and thus microalbumin, albumin-creatinin ratio (ACR) and 24h creatinin clearance were measured. Smoking habits were assessed by means of a standard questionnaire.

Results: Patients were divided in two groups according to their current smoking habits: group I (n=127 non-smokers) and group II (n=73 smokers). Smokers were younger (P<0.001), had higher diastolic blood pressure (DBP) (P<0.001), greater microalbumin levels (P<0.001), higher ACR (P<0.001) and higher body mass index (BMI) (P=0.03) compared to non-smokers. The two groups had no differences in systolic blood pressure (SBP), renal hemodynamics, glucose levels and 24h creatinin clearance (P=NS). After multivariate analysis was performed smoking remained significant determinant of higher ACR and microalbumin levels (P<0.0001) independently of DBP, BMI and age.

Conclusions: Smoking is associated with greater microalbumin excretion in patients with essential hypertension. Thus smoking may pose a burden to renal function in these subjects.

Antihypertensive effect of rosuvastatin in normocholesterolemic hypertensive patients and its association with flow mediated dilation and oxidative stress

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Background: Hypertension is one of the most important contributors to heart disease and stroke which together make up the world’s number one cause of premature death and disability. Since the time statins have been introduced, several pleiotropic effects of statins that have been described. In the past few years, another effect of statins has been proposed that statins may also lower blood pressure and thus act through a reduction in the blood pressure related risk. Because endothelial dysfunction plays a significant role in the pathogenesis of arterial hypertension, it is reasonable to search for new strategies aimed at improving endothelial function.

Aim: To study the effect of rosuvastatin therapy in normocholesterolemic patients when added to antihypertensive agent on: a) Blood pressure in stage 1 hypertensive individuals. b) Endothelial function and oxidative stress levels in stage 1 hypertensive individuals.

Methods: It was a randomized double blind study conducted over a period of 1 year. Total 100 cases of stage 1 hypertensive normocholesterolemic subjects who were not on any lipid lowering drug were recruited and divided into two groups: Group A (antihypertensive agent+rosuvastatin) and Group B (antihypertensive agent+placebo). The patients were followed up every two weeks