INTRODUCTION:
Hypertension (Non-communicable disease) is classically an “iceberg disease” even in most developed countries, only half of the hypertensive persons are aware of their condition.1

Obviously the submerged portion is much more in a developing country like India with poor literacy, awareness of risk factors, complications and medical services.

The way to know whether hypertensive or not by periodic blood pressure checkups, this aids to find out hypertension at early possibility and control its adverse effects.

Here is an experience gathered from a study of awareness of Hypertension among general population in a rural community of Krishna district, ANDRA PRADESH (AP).

Hypertension is a lifelong serious disease and should be treated promptly, this is currently the leading risk resulting in considerable death and disability worldwide and accounted for 9.4 million deaths and 7 per cent of disability adjusted life years (DALYS) in 2010 (1,2).

The global prevalence of adult hypertension has raised dramatically over the past three decades.

A recent systematic review estimated that the overall worldwide prevalence of HTN is approximately 26% in the adult population increased from 5 per cent to between 20-40 per cent in urban areas and 12-17 per cent in rural areas (3). The number of hypertensive individuals is anticipated to nearly double from 118 million in 2000 to 213 million by 2025 (4). Asian countries like India are no less with regards to burden of disease where prevalence rate as high as 35%.

The prevalence of complications due to poor control of hypertension is also rapidly increasing in developing countries and is likely to be related to changing life-styles and to an increased life expectancy.

It is estimated that 16 per cent of ischemic heart disease, 21 per cent of peripheral vascular disease, 24 per cent of acute myocardial infarctions and 29 per cent of strokes are attributable to hypertension. Underlining the huge impact effective hypertension prevention and control can have on reducing the rising burden of cardiovascular disease (5). Sciscitano et al. (6,7) suggested that as the metabolic syndrome gathers features and conditions that increase too much the cardiovascular risk profile of hypertensive patients, much more attention should be paid to the patient suffering from metabolic syndrome.

MATERIALS AND METHODS
A cross-sectional study on Hypertension was undertaken in a village (veleru) of bapulapadumandal of Nuzvidrevenue division in Krishna district of Andhra Pradesh in India.

It was a randomly selected convenient village out of about 30

Aims & Objectives: The study was conducted in rural population of Andhra Pradesh with an objective:
1. To measure the prevalence of hypertension and staging it based on ACC/AHA 2017 HYPERTENSION GUIDELINES (13 Nov 2017).
2. To find the relation between Hypertension and various risk factors like age, gender, family history, smoking, alcohol and obesity.
3. To know the awareness of risk factors of Hypertension.
4. To know awareness of complications of Hypertension.
5. To know the awareness of treatment and control measures of Hypertension.

METHODOLOGY: STUDY DESIGN: A community based cross-sectional study on Hypertension prevalence and awareness.

STUDY AREA: In VELERU Village, Rural Krishna district, Andhra Pradesh through house to house visits from May 2016 to September 2017.

STUDY PARTICIPANTS: Adult population of veleru village aged above 30 years.

SAMPLE SIZE = 1200 (Male= 600; Female= 600). The data was entered and analysed using MS Excel 2007 software.

Results: In the 1200 population, the prevalence of hypertension is about 132 (12.5%). Only 15.2% of all study subjects were aware of their own blood pressure readings with no male-female difference. Majority of patients are illiterate 69.8% (838). Even among hypertensives, only 35% were aware of their blood pressure readings. Nearly 58.75% (705) of the study subjects had no knowledge about complications of hypertension. About 80.25% (963) of the study subjects were ignorant about the risk factors of hypertension. Regarding hypertension control/treatment, 69.8% (838) of study subjects were unaware.

Conclusion: Hypertension awareness among this study population was very poor even among the hypertensives leading to a high risk of cerebrovascular accidents and coronary heart diseases and many other complications.

Through this study we identified areas of importance that need to be considered by awareness programs.
villages in the study was conducted by house-to-house visit, contacting each and every adult person (Census) of the village ≥ 30 years (Total 1200, Male=600 & Female=600).

A pre-tested semi-structured schedule was used to collect data regarding awareness of their own blood pressure readings, risk factors, awareness of complications, prevention and control measures of hypertension.

Blood pressure of every adult was measured by Mercury manometer using standard technique. 2-4 Pre-treatment Blood pressure readings was recorded for those who were on treatment.

The individuals’ blood pressure readings recorded based on an average of ≥2 careful readings obtained on ≥2 occasions.

We excluded individuals less than 30 years of age individuals who were not available at home inspite of prior information for second reading of blood pressure were removed.

Data collected were tabulated and analyzed [8]. Height and weight are measured by using measuring tape and weighing machine for calculating BMI.

**RESULTS:**

In our study we found that with an increase in BMI there is an increase in percentage of hypertensives in about 7.75% (93) in overweight people and 3.15% (38) in obese people.

Body Mass Index was calculated as a person’s weight in kilograms divided by the square of his height in meter ($\text{kg/m}^2$). WHO guidelines are found to be inappropriate for Indian population. So INDIAN guidelines are considered for our study.

INDIAN Guidelines: under weight: >18kg/m$^2$, NORMAL BMI: 18-22.9kg/m$^2$, Overweight: 23-24.9kg/m$^2$, Obesity: >25kg/m$^2$ (9)

In total 1200 people, about (30.2%) 362 are literate and 838 (69.8%) are illiterate, A majority people being illiterate. Among hypertensive population, 9.5% were females and 3% were males.

In our study we found that with the percentage of hypertensives increases with increase in age, having more percentage about 8.05% (97 people) being hypertensive at more than 60 years of age.

About 145 people (12.05%) of people are hypertensive people with a previous family history of hypertension.
Among the smokers, 15.1% (181 people) are hypertensive and among non-smokers, 6.45% (77 people) are hypertensive. The percentage of hypertensives are more among the smokers.

Among the Alcoholics, 9.35% (112 people) are hypertensive and among non-alcoholics 6.95% (83 people) are hypertensive. The percentage of hypertensives are more in alcoholics than non alcoholics.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>SBP</th>
<th>DBP</th>
<th>FIRST READING (1200 PEOPLE)</th>
<th>SECOND READING (1073 PEOPLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL</td>
<td>&lt;120</td>
<td>&lt;80</td>
<td>273 (22.7%)</td>
<td>235 (21.9%)</td>
</tr>
<tr>
<td>ELEVATED BP 120-129</td>
<td>&lt;80</td>
<td>547 (45.6%)</td>
<td>486 (45.3%)</td>
<td></td>
</tr>
<tr>
<td>STAGE 1 130-139</td>
<td>&gt;80-89</td>
<td>306 (25.5%)</td>
<td>277 (25.8%)</td>
<td></td>
</tr>
<tr>
<td>STAGE 2 &gt;140</td>
<td>&gt;90</td>
<td>42 (3.5%)</td>
<td>45(4.2%)</td>
<td></td>
</tr>
<tr>
<td>HYPERTENSIVE CRISIS</td>
<td>&gt;180</td>
<td>32 (2.7%)</td>
<td>30(2.8%)</td>
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</table>

About 237 (19.75%) are aware of high salt intake is a risk factor and about 963 (80.25%) of people are not aware of risk factors.

In our study we found that about 22.7% in first reading and 21.9% in second readings as normotensives.

Basing on ACC/AHA 2017 HYPERTENSION GUIDELINES (13 NOV 2017), now a majority of population are classified elevated BP ie about 45.6% in first reading and 45.3% in second reading.

**AWARNESS OF CONTROL AND TREATMENT MEASURES**

<table>
<thead>
<tr>
<th>NUMBER OF PEOPLE(PERCENTAGE OF PEOPLE)</th>
<th>SBP</th>
<th>DBP</th>
<th>FIRST READING (1200 PEOPLE)</th>
<th>SECOND READING (1073 PEOPLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALT RESTRICTION</td>
<td>363 (30.16%)</td>
<td>53 (4.41%)</td>
<td>202 (16.83%)</td>
<td></td>
</tr>
<tr>
<td>REGULAR MEDICATION</td>
<td>108 (9%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXERCISE</td>
<td>185 (15.41%)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DIET/FAT CONTROL</td>
<td>838 (69.8%)</td>
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</table>

Most of people are aware of brain damage CVA (37.95%) and heart damage (41.25%). Most of them are aware of salt restriction (30.16%) and exercise (16.83%) can control blood pressure.

**DISCUSSION:**

Hypertension is a major contributor to the global disease burden. It poses an important public health challenge to both economically developing and developed countries, including Asia.

Maintaining adequate level of blood pressure will lead to a lower incidence of complications. For this it is extremely vital that the general public is must be aware of the risk factors, presenting features and complications of hypertension, treatment, controlling and preventive measures and the importance of earlier diagnosis.

The predictors of hypertension include increasing age, female gender, having a family history of hypertension, obesity, high salt intake, sedentary life style, smoking, excessive stress and alcohol intake.

Awareness will help in moulding the modifiable risk factors in themselves and in those around them, as besides age, race, gender and family history, all the other risk factors are modifiable. Most of them are in Elevated blood pressure stage on ACC/AHA 2017 HYPERTENSION GUIDELINES (13 NOV 2017) which can be minimized effectively by education and awareness programme of masses, making them understand the fact that Prevention is better than Cure. Taking necessary initiatives regarding the control of modifiable risk factors minimizes blood pressure readings among the hypertensive.

Majority of patients are illiterate 69.8% (838). Even among hypertensives, only 35% were aware of their own BP readings.

Nearly 58.75% (705) of the study subjects had no knowledge about complications of hypertension.

About 80.25% (963) of the study subjects were ignorant about the risk factors of hypertension. Regarding hypertension control/treatment, 69.8% (838) of subjects were unaware.

Here literacy played a significant role. As this shows high prevalence among illiterates regarding ignorance about awareness of risk factors, complications and also treatment and control measures.

Educating the masses can be one of the most effective approaches regarding decreasing the complications of hypertension.

**Conclusion:**

Blood pressure is an important modifiable risk factor for cardiovascular diseases, stroke, CVA, kidney diseases etc.

The awareness regarding hypertension is very poor amongst rural people. Through this study we identify areas of importance that need to be considered by awareness programs.

Masses should be educated on the risk factors, presenting features and complications of hypertension, about the necessity and importance of adherence to treatment.

This is possible through hypertensive awareness programmes designed by health professionals and the government.

**References:**
