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# A GENDER BASED MARKET SURVEY ON PRESENT SCENARIO OF HYPERTENSIVE DRUGS IN ANANTAPURAMU 

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## ABSTRACT

The goal of this study was to estimate the prevalence of hypertension and the number of people of all ages (both sexes) with hypertension and their medication. Hypertensive Patients profiles of 100 members were used for this study. Among these 100 patients forty five were males and remaining were females. In Age group study, we conclude that among 100 patients with age between $46-60,63 \%$ are found to have hypertension. In Frequency of checking hypertension study $70 \%$ numberof patients were checking every
 month. In gender study among 100 patients $53 \%$ were males \& $47 \%$ were females. In type of Dosage Form study among 100 Patients $93 \%$ patients were using solid dosage form \& 7\% patients were using injections. In Single drug combination study $26 \%$ patients were using atenolol. In Combination of Drug study among 100 patients $6 \%$ patients were using (Amlodipine+Atenolol) combination another $6 \%$ patients were using (Telmisartan+Hclthaizide) combination. In Duration of Disease study among 100 patients $79 \%$ patients were found be between between $1-5$ years.In Hereditary study among 100 patients, $50 \%$ were found to be due NonHereditary, $21 \%$ were found to be due Hereditary remaining patients don't the reason for hypertension.

## INTRODUCTION:

High Blood Pressure or Hypertension is one of the most important preventable causes of premature death worldwide. Even a blood pressure at the top end of the normal range increases the risk. As a consequence, high blood pressure is often called the "Silent Killer". There are two types. Primary or essential hypertension ( $97-98 \%$ ) has no clear underlying cause but appears to be the result of interplay of
complex genetic and environmental factors. Secondary hypertension (2-3\%) is caused by a specific underlying mechanism usually involving kidneys or endocrine system. Arterial hypertension is a common and preventable cardiovascular risk factor, leading to about 1.7 million deaths/year worldwide. In India, raised blood pressure increased from $5 \%$ in the 1960s to nearly $12 \%$ in 1990s, to more than $30 \%$ in 2008.
(Prabakaran, 2013; Dublin, 2011; Addo.J et al 2007)

## MATERIALS AND METHOD:

Materials:
Hypertensive Patients profiles were used for the study. Among these 100 patients forty five are males and remaining are females.
Methodology: (K.H.Ushadevi et al, 2013; Tanuja V 2010; Kannan and T.S.Satyamoorthy 2009)
A) Study type

Gender based study.
B) Study site: Out-patient Pharmacy (OPP), of some nursing homes \& some areas in Anantapuramu, A.P.

## C) Study duration

The study was carried out from $26^{\text {th }}$ February to $1^{\text {st }}$ march2014.

## D) Inclusion and exclusion criteria

All the hypertensive patients who visited the OPP during the study period were enrolled in the study. In case if a patient has not taken medicines from our OPP, those patients were excluded.

## E) Operational modality

Patients were enrolled in the study after getting a verbal informed consent. Patients were interviewed based on the study objectives. The details were entered in the structured patient profile form.
The filled patient profile form was analyzed for various parameters like age distribution and gender of patients, duration of hypertension, concurrent illness, family history of hypertension, number of drugs per prescription, average number of drugs prescribed, therapeutic category of drugs, class of anti-hypertension, types of preparations used, dosage form, duration of therapy and the prescribing indicators. (Mili Joshi, etal 2006) This is a short hypertensive patient survey. We collected data from patients with the following questionnaire.

1. Age
A. 1-15
B. 16-30
C. 31-45
D. $46-60$
E. Above 61
2. Sex
A. Female
B. Male
3. How often is your BP Checked?
A. Once in a month
B. Once in 2 month
C. Once in 3 month
D. Once in 4 year
4. How long have you had hypertension?
A. Less than a year
B. 1 to 5 years
C. More than 5 years
5. Which Dosage form they are using?
A. Tablets
B. Injections
C. Both
6. Which drug you are using for hypertension (Single drug)?
A. Atenolol
B. Amlodipine
C. Telmisartan
D. Losartan
E. Hydro Chlorothiazide
F. Methyldopa
G. Hydralazine
7. Which drug you are using for hypertension (Combination of two Drugs)?
A. Telmisartan Hydrochlorothiazide
B. Amlodipine \& Atenolol
C. Amlodipine \& Telmisartan
D. Lisinopril \& Hydro Chlorothiazide
E. Ramapril \& Hydro Chlorothiazide
F. Losartan \& Ramipril
G. Amlodipine \& Lisinopril
H. Amlodipine \& Losartan
8. What is the family history of hypertension?
A. Hereditary
B. Non Hereditary and
C. Don't know

RESULTS AND DISCUSSION:
Table 1: Classification of hypertension based on blood pressure

| Status | Systolic pressure <br> $\mathrm{mm} / \mathrm{Hg}$ | Diastolic pressure <br> $\mathrm{Mm} / \mathrm{Hg}$ | Risk |
| :--- | :--- | :--- | :--- |
| Normal | $<130$ | $<85$ | None |
| Prehypertension | 120 to 139 | 80 to 90 | Slight |
| Stage1(mild) | 140 to 159 | 90 to 99 | Long term |
| Stage2(moderate) | 160 to 179 | 100 to 109 | $50 \%$ in 5years |
| Stage3(severe) | 180 to 209 | 110 to 119 | $40 \%$ in 2years |
| Stage4(very severe) | $>210$ | $>120$ | Emergency |


| Age range | Male | Female | Total |
| :--- | :--- | :--- | :--- |
| $0-15$ | 0 | 0 | 0 |
| $16-30$ | 0 | 0 | 0 |
| $31-45$ | 5 | 9 | 14 |
| $46-60$ | 24 | 39 | 63 |
| above60 | 12 | 11 | 23 |

Table 2: Age Group


Fig 1: Age Group


Fig 2: Frequency of Checking

Table 4: Gender

| Males | Females | Total |
| :---: | :---: | :---: |
| 53 | 47 | 100 |

Table 5: Type of Dosage Form

| Type of dose | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| Injection | 4 | 3 | 7 |
| Tablets | 49 | 44 | 93 |



Fig 3: Gender


Fig 4: Type of Dosage Form

## Single drug combination

Table 6: Single drug combination

| S.No | Drug name | No.of patient | Male | Female |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Atenolol | 26 | 18 | 8 |
| 2 | Amlodipine | 5 | 1 | 4 |
| 3 | Telmisartan | 14 | 6 | 8 |
| 4 | Losartan | 3 | 1 | 2 |
| 5 | Hydrochloro thiazide | 1 | 1 | 0 |
| 6 | Methyldopa | 1 | 1 | 0 |
| 7 | Labetalol | 3 | 3 | 0 |
| 8 | Nevibilol | 3 | 2 | 1 |
| 9 | Clinidine | 1 | 0 | 1 |
| 10 | Amlosartan | 1 | 1 | 0 |
| 11 | Na nitroprusside | 1 | 0 | 1 |
| 12 | Hydralazine | 1 | 0 | 1 |
| 13 | Atorvastatin | 4 | 2 | 2 |
| 14 | Verapamil | 2 | 1 | 1 |
|  | Total patients | 66 | 37 | 29 |



Fig 5: Single Drug Use

## Combination of Drugs

Table. 7 Combination of Drug

| combination of drug | Male | Female | Total |
| :--- | :---: | :---: | :---: |
| Amlodipine+Atenolol | 2 | 4 | 6 |
| Amlodipine+Telmisartan | 2 | 1 | 3 |
| Telmisartan+Hclthaizide | 4 | 2 | 6 |
| Ramipril +Hcl Thiazide | 1 | 1 | 2 |
| Losartan+ Ramipril | 0 | 1 | 1 |
| Losartan+Amlodipine | 1 | 3 | 4 |
| Lisinopril+ Hclthaizide | 1 | 0 | 1 |
| Amlodipine+Lisinopril | 0 | 1 | 1 |
| Losartan+Hclthiazide | 1 | 0 | 1 |
| Atenolol+Nevibilol | 1 | 1 | 2 |
| TOTAL | 13 | 14 | 27 |



Fig 6: Combination of Drugs
Duration of disease
Table 8: Duration of Disease

| S.NO | YEARS | PATIENT NO |
| :---: | :---: | :---: |
| $\mathbf{1}$ | Less Than Year | 0 |
| $\mathbf{2}$ | 1-5 Years | 79 |
| $\mathbf{3}$ | Above 5 Years | 21 |
|  | Total | 100 |

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Fig 7: Duration of Disease

## Hereditary \&Non Hereditary

Table 9: Hereditary \&Non Hereditary

| Sex | Non Hereditary | Hereditary | Don't Know |
| :---: | :---: | :---: | :---: |
| Male | 24 | 11 | 18 |
| Female | 26 | 10 | 11 |
| Total | 50 | 21 | 29 |



Fig 8: Heridatory and Non Heridatory

## CONCLUSION:

From this market survey on few hypertensive patients we are concluding following. In Age group study, we conclude that among 100 patients with age between $46-60 \%$, $63 \%$ are found to
have hypertension. In Frequency of Checking hypertension study $70 \%$ of patients were checking every month. In gender study among 100 patients $53 \%$ were males \& $47 \%$ were females. In type of Dosage Form study among 100

Patients $93 \%$ patients were using solid dosage form \& 7\% patients were using injections. In Single drug combination study $26 \%$ patients were using atenolol. In Combination of Drug study among 100 patients $6 \%$ patients were using (Amlodipine + Atenolol) combination another $6 \%$ patients were using Telmisartan and Hydrochlorothiazide combination. In Duration of Disease study among 100 patients $79 \%$ patients were found be between 1-5 years. In Hereditary study among 100 patients, 50 \% were found to be due Hereditary remaining patients don't the reason for hypertension.

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