PREVALENCE OF HYPERTENSION AMONG THE ADULTS IN VARAKAVIPUDI VS KAKUPALLI

Katari Kantha, Arumugam Indira and Usha Rani M
**INTRODUCTION**

Blood pressure is the pressure exerted by circulating blood upon the walls of blood vessels, and is one of the principal vital signs. Globally, the overall prevalence of hypertension in adults aged 25 years & over was around 40% in 2008. The number of people with hypertension rose from 600 million in 1980 to 1 billion in 2008. The increasing prevalence of hypertension is attributed to population growth, ageing and behavioral risk factors, such as unhealthy diet, harmful use of alcohol, lack of physical activity, excess weight and exposure to persistent stress. Hypertension is a major risk factor for NCDs like stroke, cardiovascular disease and chronic kidney disease. Complications of hypertension account for 9.4 million deaths worldwide every year. Hypertension is responsible for 45% of deaths due to heart disease and 51% of deaths due to stroke. In India, 23.10% of men and 22.60% of women over 25 years suffer from hypertension. One in three adults worldwide has high blood pressure. Hypertension increases the risk of heart attack, stroke, kidney failure and much other associated co morbidity. Treating raised blood pressure and maintaining it below 140/90 mmHg is

**Keywords:** Hypertension, non coastal area, coastal area, heart attack, stroke.
associated with a reduction in cardiovascular complication. The theme for World Health Day (WHD) 2013 is “high blood pressure”. The goal of WHD 2013 is to reduce heart attacks and strokes. Keeping in line with the WHO, Government of India, Country Cooperation Strategy, the WHO 2013 events in India are aimed at raising the awareness amongst national policymakers, program managers and other stakeholders on the need to strengthen the Indian health system to make it competent enough to respond to hypertension and related co-morbidities.

Kantha, K and Indira, A. (2015) conducted a cross sectional study on prevalence of hypertension among the adults in coastal and non coastal areas. A total of 5000 samples were included in the study. In that 2500 samples belongs to coastal areas and 2500 samples belongs to non coastal areas. The prevalence of stage-I hypertension in coastal areas is 460(18.4%) but in non coastal areas it is 1413(56.50%). The results indicate that there is high prevalence of hypertension in non coastal areas than coastal areas.

Even today there is scarcity of the studies in coastal and non coastal areas of India. With this background, present study has been undertaken to study the prevalence of hypertension. 

Objectives of the Study

- To assess the prevalence of hypertension among adults of coastal and non coastal areas.
- To identify the risk factors of hypertension among adults of coastal and non coastal areas.
- To compare the prevalence of hypertension between coastal and non coastal areas.
- To find association between the prevalence of hypertension with selected socio demographic variables.

Detailed Research Plan


Research Design: Descriptive design.

Research Setting: The study was conducted in Varakavipudi (coastal area) and Kakupalli (non coastal area) by using a descriptive design.

Coastal area means areas within 2km from mean low water mark (MLWM) or mean high water mark (MHWM),

Non coastal area means areas far 2km from mean low water mark (MLWM) or mean high water mark (MHWM),

Sampling Technique: Convenience sampling technique

Sample Size: A total of 500 samples were included in this study. Among this, 250 samples belongs to Varakavipudi (coastal area) and 250 samples belongs to Kakupalli (non coastal area).

RESULTS AND DISCUSSION

Comparison of Blood Pressure in Varakavipudi and Kakupalli

Table 1 Comparison of Blood Pressure in Varakavipudi and Kakupalli. (N=250)

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Varakavipudi</th>
<th>Kakupalli</th>
<th>Correlation Coefficient</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal</td>
<td>50 (20%)</td>
<td>2 (0.8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>61 (24.4%)</td>
<td>7 (2.8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Normal</td>
<td>61 (24.4%)</td>
<td>62 (24.8%)</td>
<td>0.22</td>
<td>27.89</td>
</tr>
<tr>
<td>Stage-I</td>
<td>28 (11.2%)</td>
<td>83 (33.2%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage-II</td>
<td>10 (4%)</td>
<td>26 (10.4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage-III</td>
<td>0 (0.0%)</td>
<td>4 (1.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade-I</td>
<td>35 (14%)</td>
<td>61 (24.4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade-II</td>
<td>5 (2%)</td>
<td>5 (2%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The prevalence of stage-I BP in coastal area is 28(11.2%) but in non coastal areas it is 83(33.2%). The correlation coefficient value is highly significant (0.22) and the standard deviation is 27.89.

Comparison of Body Mass Index In Kothakoduru and Vidavaluru

Fig. 1 Comparison of Blood Pressure in Varakavipudi and Kakupalli

Fig. 2 Comparison of Body Mass Index in Varakavipudi and Kakupalli
The prevalence of overweight samples in coastal area is 36(14.4%), obesity is 13(5.2%) but in non coastal areas it is 20(8%) and 10(4%). The correlation coefficient value is highly significant (0.97) and the standard deviation is 77.60.

**Association of Socio Demographic Data with the Blood Pressure in Varakavipudi**

There is a significant association of demographic variables with Age, family, income, Working members in family, type of ventilation, sleeping hours, sleeping pattern, exercise, food pattern, type of salt used, use of fast food, use of Biriyani, hotel food and worship of god, are you a known hypertensive and remaining are non significant.

**Association of Socio Demographic Data with the Blood Pressure in Kakupalli**

There is a significant association of demographic variables occupation, Amount of oil used for per day, Entertainment, Use of Biriyani and remaining are non significant.

**CONCLUSION**

- The above results shown that stage-1 and stage-2 isolated hypertension values are higher in the Kakupalli (non coastal area) than in the Varakavipudi(coastal area).
- The variables like Age, exercise, Type of oil used for cooking, Type of salt used, habits, intake of fish, are you having stress and are you a known hypertensive are the influencing risk factors for the development of hypertension among the adults.

**References**


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