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Prevalence of Hypertension among the Adults in Varakavipudi Vs Inamadugu Nellore

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ABSTRACT

Background: Elevated blood pressure is rising nearly 30 percent in teens, and by 2025, hypertension will affect 1.56 billion adults worldwide. This is a growing health concern; untreated high blood pressure may damage organs in the body and increase the risk of heart attack, stroke, and brain hemorrhage.
Aim: To assess the prevalence of hypertension.
Setting and Design: The study was conducted in Varakavipudi (coastal area) and Inamadugu (non coastal area) by using a descriptive design.
Materials and Methods: A total of 500 samples were included in this study. Among this, 250 samples belongs to coastal area and 250 samples belongs to noncoastal area by using convenience sampling technique.
Statistical Analysis Used: The collected data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives of the study.
Results: In Varakavipudi, Out of 250 samples, With regard to the category of the blood pressure 28(11.2%) are stage-I, 10(4%)are stage-II, 35(14%)are grade-I, and 5(2%)are grade-II isolated systolic hypertension. Known Hypertensive cases are 50(20%), Newly diagnosed cases are 28(11.2%). With regard to BMI, among 250 samples 36(14.4%) were overweight and 13(5.2%) were obese. in Inamadugu, among 250 samples, 92(36.8 %) are stage-I, 2(0.8%) are stage-III, 50(20%) are grade-I. Known Hypertensive cases are 69(27.6%). Newly diagnosed cases are 93(37.2%). With regard to BMI among 250 samples, 30(12%) were overweight and 10(4%) were obese.
Conclusion: The above results showed that blood pressure values are high in the Inamadugu (noncoastal area) than Varakavipudi (coastal area).
Keywords : Hypertension, Non-Coastal Area, Coastal Area, Heart Attack, Stroke.

I. INTRODUCTION

One in three adults worldwide has high blood pressure. Hypertension increases the risk of heart attack, stroke, kidney failure and much other associated comorbidity. Treating raised blood pressure and maintaining it below 140/90 mmHg is 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[1].

Kantha, K, and Indira, A. (2015) conducted a cross-sectional study on the 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 belong 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 a high prevalence of hypertension in non-coastal areas than coastal areas[2] and the other studies from the same authors also had proved that the blood pressure values are higher in the non-coastal areas than the coastal areas[3,4,5,6&7].

Arumugam Indira et.al. (2015) conducted a study on the prevalence of prehypertension among the adults in coastal and non-coastal areas. The study results shown

that regarding prehypertension in SBP, in coastal areas 1129(45.16%) and in non-coastal areas 971(38.84%). The results indicate that there is a high prevalence of pre hypertension in coastal areas than non-coastal areas. Further studies are needed to find out the reasons and measures to control high blood pressure is necessary[8].

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

II. METHODS AND MATERIAL

1. Objectives of the Study

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

2. Detailed Research Plan

Research Approach: Quantitative Approach.
Research Design: Descriptive design.
Research Setting: The study was conducted in Varakavi Audi (coastal area) and Inamadugu (noncoastal area) by using a descriptive design.
Coastal area means areas within 2km from mean low water mark (MLWM) or means high water mark (MHWM).
Non-coastal area means areas far 2km from mean low water mark (MLWM) or means 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 belong to Varakavi pudi (coastal area) and 250 samples belong to Inamadugu (non-coastal area).

III. RESULT AND DISCUSSION

Comparison of Blood Pressure in Varakavipudi and Inamadugu.

Table 1. Comparison of Blood Pressure in Varakavipudi and Inamadugu

(N=250)

Blood Pressure Category	VARAKAVIPUDI		INAMADUGU		Correlation coefficient	Standard deviation
	(f)	(%)	(f)	(%)		
Optimal	50	20%	6	2.4%	0.33	29.32
Norma	61	24.4%	12	4.8%		
High Normal	61	24.4%	70	28%		
Stage-I	28	11.2%	92	36.8%		
Stage-II	10	4%	20	8%		
Grade-I	35	14%	50	20%		
Grade-II	5	2%	0	0.00%		

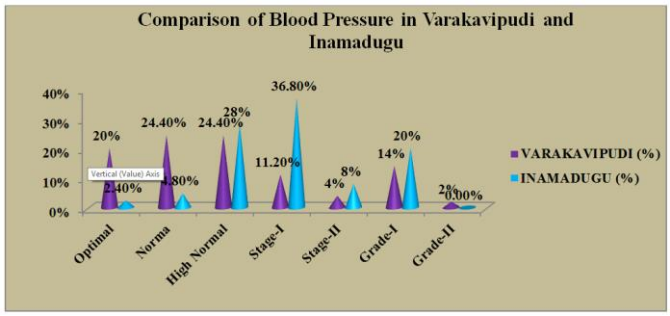

Figure 1. Comparison of Blood Pressure in Varakavipudi and Inamadugu

The prevalence of stage-I BP in the coastal area is 28(11.2%) but in non-coastal areas, it is 92(36.8%). The correlation coefficient value is highly significant (0.9) and the standard deviation is 35.15.

Comparison of Body Mass Index In Varakavipudi and Inamadugu

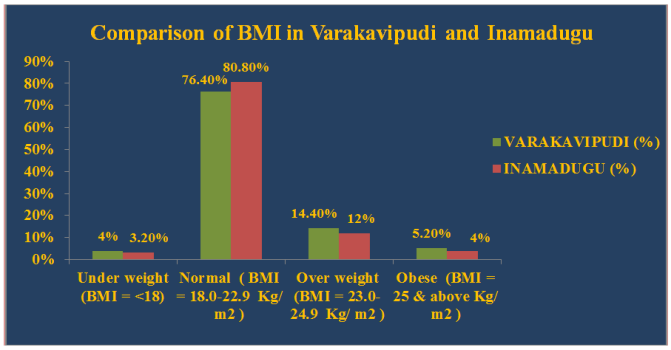

Figure 2. Comparison of Body Mass Index in Varakavipudi and Inamadugu

The prevalence of overweight samples in coastal area is 36 (14.4%), obesity is 13(5.2%) but in non coastal areas it is 30(12%) and 10(4%). The correlation coefficient value is highly significant (0.99) and the standard deviation is 83.37.

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 Inamadugu:

There is a significant association of demographic variables with age, education, sleeping hours, exercise, food pattern, Type of oil used for cooking, amount of oil used for per day, Habits, use of fast food, use of Biriyani and remaining are non-significant.

Good eating practices, Spirulina the future food supplementation and alternative practices help the individuals to keep their blood pressure in the normal range [9, 10, 11, 12, 13 &14].

IV. CONCLUSION

The above results showed that grade-1 and grade-2 isolated systolic hypertension values are higher in the Inamadugu (non-coastal area) than in the Varakavipudi (coastal area).

- ✓ Among hypertension cases, the prevalence of obesity is more in non-coastal area than 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.

V. REFERENCES

[1] Anchala R, Kannuri NK, Pant H, et al. Hypertension in India: a systematic review and meta-analysis of prevalence, awareness, and control of hypertension. J Hypertens. 2014; 32(6):1170-7.

[2] Katari Kantha and Arumugam Indira, Prevalence of hypertension among the adults in coastal and non coastal areas International Journal of Development Research, Vol. 05, Issue, 01, pp. 3134-3139, January, 2015.

[3] Katari Kantha &Arumugam Indira Comparison of Prevalence of Hypertension among the Adults in Mypadupalem Vs Papireddypalem Nellore Imperial Journal of Interdisciplinary Research (IJIR) Vol-2, Issue-10, 2016: 932-934.

[4] Katari Kantha and Arumugam Indira Prevalence of hypertension among the adults in Koratur VS Kovur Nellore International Journal of Applied Research 2016; 2(9): 94-96.

[5] Gangapatnam Subrahmanyam et al., Arterial Stiffness and Trace Elements in Apparently Healthy Population-A Cross-sectional Study Journal of Clinical and Diagnostic Research. 2016 Sep, Vol-10(9): LC12-LC15.

[6] Katari K, . Prevalence of hypertension among the adults in Indukurpet Vs Vidavalur, Nellore. www.scopemed.org/?mno=233525 [Access: September 26, 2016].

[7] Arumugam Indira, Katari Kantha, Dr. G Subramanyam and Dr. P Ram Mohan Can body mass index can be replaced by mid upper arm circumference International Journal of Applied Research 2016; 2(6): 1025-1027.

[8] Arumugam Indira et.al, Prevalence of Pre Hypertension among the Adults Aged 20-60 Years in Coastal and Non Coastal areas International Journal of recent scientific research.6(11),pp.7166-7170, November,2015.

[9] Arumugam Indira and Katari Kantha. Nutritional status of antenatal and postnatal mothers in selected rural areas at Nellore. International Journal of Recent Scientific Research Vol. 6, Issue, 2, pp.2796-2800, February, 2015.

[10] Katari Kantha et al., Nutritional Status Of Infant Children In Selected Rural Areas At Nellore International Journal Of Recent Scientific Research Vol. 6, Issue, 6, Pp.4597-4601, June, 2015.

[11] Katari Kantha, M Usha Rani, Alfia Parameswaran, Arumugam Indira The knowledge regarding eating disorders among adolescent girls International Journal of Applied Research 2016; 2(5): 864-866.

[12] Kantha Katari. Spirulina the Best Food for Future. Www.Scopemed.Org/?Mno=228758 [Access: September 26, 2016].

[13] Kantha Katari. Human Milk Banking. Www.Scopemed.Org/?Mno=229095 [Access: September 26, 2016].

[14] Kantha Katari. Knowledge Regarding Complementary and Alternative Therapy among Staff Nurses. Www.Scopemed.Org/?Mno=229182 [Access: September 26, 2016].