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A Study of Hypertension With Reference To Socioeconomic and Demographic Factors in Age Group of 30 To 50 Years of Age in An Urban Slum of Mumbai

Medicine

KEYWORDS : Hypertension, socio-economic and demographic factors, cardiovascular disorder.

*** Dr. Vishal M. Patil**	MD Community Medicine, AMO, Department of Public Health, Municipal Corporation of Greater Mumbai, Maharashtra, India. * Corresponding author
Dr.S.R.Suryawanshi	MD Community Medicine, Professor and Head, Department of Community Medicine, Topiwala National Medical College and B.Y.L.Nair Charitable Hospital, Mumbai, Maharashtra, India.

ABSTRACT

Hypertension is a chronic condition of concern due to its role in the causation of coronary heart disease, stroke and other vascular complications. Objective was to study socioeconomic and demographic factors associated with hypertension in the age group 30 to 50 years of age. Study conducted at cheetah camp urban slum during the period of August 2013 to December 2013 involving 147 study subjects. Out of total 147 study subjects 40.81% were between 30 to 35 years of age, 49.65% had secondary education, 45.57% belonged to Class II, 72.79% were females, 80.96% were Muslims, 78.24% lived in Joint family. Age, Sex, Socioeconomic class, type of family were significantly associated with hypertension.

INTRODUCTION

Hypertension is a chronic condition of concern due to its role in the causation of coronary heart disease, stroke and other vascular complications. It is the commonest cardiovascular disorder, posing a major public health challenge to population in socio economic and epidemiologic transition. It is one of the major risk factors for cardiovascular mortality, which accounts for 20-50 per cent of all deaths.[1]

Blood pressure is a continuously distributed variable in populations. There is no natural dividing line between high and normal blood pressure. However WHO in its expert committee report has arbitrarily defined hypertension in adults as a systolic blood pressure equal to or greater than 140 mm Hg and/or a diastolic pressure equal to or greater than 90 mm Hg. The epidemiological studies have demonstrated that hypertension is an important risk factor for most cardiovascular complications including congestive cardiac failure, stroke, myocardial infarction and sudden death.

Hypertension is one of the most common cardiovascular diseases with a prevalence ranging from 10 to 20% among adult population. The epidemiological studies have demonstrated that hypertension is an important risk factor for most cardiovascular complications including congestive cardiac failure, stroke, myocardial infarction and sudden death. Hypertension has found to be highly correlated with reduced life expectancy in India.[2]

Most of the hypertensive cases are asymptomatic and are diagnosed accidentally. So, it is very important to detect such cases as early as possible. Therefore the need arises to conduct this study to find out socioeconomic and demographic factors associated with hypertension in the age group 30 to 50 years of age.

Materials and methods:

This community based descriptive epidemiological cross sectional study was conducted at cheetah camp urban slum area in Mumbai during the period of August 2013 to October 2013.

Sample size: The population of study area is around 83,253. There are total 11 sectors in cheetah camp. Out of 11 sectors, one sector i.e sector J was selected by Simple Random Method.

According to Sample Registration system 2010, the proportion of population in age group 30 to 50 years is 25.5%. Population of J sector is 5761, so the study age group population comes around 1469. And 10% of this population i.e 147 was included for this study. The list of individuals in age group of 30 to 50 years was available with the health post of that area.

Sampling Method- Systematic Random Sampling Method i.e. every 10th individual was included in this study from the list of individuals in age group of 30 to 50 years. The first subject was selected randomly, then every 10th individual was included in the study. Modified Prasad's classification for urban area was used to determine the socioeconomic class of the subjects.

Study subjects were interviewed by using preformed, pretested, semi structured questionnaire. The collected data was entered in Microsoft Excel 2007 and then data transferred to SPSS version 16, the data was numerically coded and entered. Added data was analysed with appropriate test like chi-square test to find the association of sociodemographic factors with Hypertension and to find out the level of significance with p value 0.05 considered as significant.

RESULTS:

Table 1: Socio-demographic variables of study subjects

Characteristics		Hypertension				P value
		Yes		No		
Age (Yrs)	30 to 35	3	(10.72%)	57	(47.94%)	0.001
	36 to 40	6	(21.42%)	24	(20.19%)	
	41 to 45	8	(28.58%)	20	(16.48%)	
	46 to 50	11	(39.28%)	18	(15.39%)	
Education	Illiterate	2	(7.14%)	5	(4.22%)	0.231
	Primary	7	(25%)	24	(20.16%)	
	Secondary	10	(35.71%)	63	(52.94%)	
	≥Higher Secondary	9	(32.15%)	27	(22.68%)	
Socioeconomic Class	I	8	(28.57%)	6	(5.04%)	0.002
	II	10	(35.72%)	57	(47.89%)	
	III	9	(32.14%)	46	(38.65%)	
	IV	1	(3.57%)	10	(8.42%)	

Sex	Male	10	(35.71%)	30	(25.21%)	0.001
	Female	18	(64.29%)	89	(74.79%)	
Religion	Hindu	8	(28.57%)	20	(16.81%)	0.154
	Muslim	20	(71.43%)	99	(83.19%)	
Type of Family	Nuclear	15	(53.57%)	17	(14.28%)	0.001
	Joint	13	(46.43%)	102	(85.72%)	

It was observed that out of total 147 study subjects 40.81% were between 30 to 35 years of age, 20.4% were 35 to 40 years of age, 19.04% were 41 to 45 years of age followed by 19.72% were 46 to 50 years of age.

Out of total 147 study subjects, 7 (4.7%) were illiterate, 31 (21.08%) had primary education, 73 (49.65%) had secondary education, 36 (24.48%) had equal to or more than higher secondary education.

Majority of subjects 45.57% belonged to Class II, 37.41% subjects belonged to class III, 9.52 subjects belonged to class I and 7.48% subjects belonged to class IV.

Majority of subjects 72.79% were females and 27.21% were males.

Majority of the subjects 80.96% were Muslims. The rest were Hindus 19.04%.

It was observed that 21.76% subjects lived in Nuclear family and 78.24% lived in Joint family.

Discussion-

In this study it was observed that more cases of hypertension were in the age group of 46 to 50 years i.e 39.28%. It was observed that as the age increases the chances of hypertension also increases. Similar findings were observed in studies performed by Jaipur Urban study[3], Sharma AK[4], Pradeep kumar[5] which stated age was significantly associated with Hypertension.

It was found that 7 (4.7%) were illiterate, 31 (21.08%) had primary education, 73 (49.65%) had secondary education, 36 (24.48%) had equal to or more than higher secondary education. Education of study subjects was not associated with hypertension. Similar findings were observed in study performed by Sharma AK[4] which stated that Education of study subjects was not associated with hypertension

It was seen that there was statistically significant inverse association between socioeconomic class and Hypertension. Socioeconomic Class is categorized according to Modified Prasad's Classification for urban urea[6]. Thus, it was observed that maximum number of study subjects i.e 64.29% of hypertensive cases were from higher socioeconomic class. The association between socioeconomic class and hypertension was found to be statistically significant.

Similar findings were observed in study performed by Teo GS & Indris MN[7] which states that low socioeconomic status was found to be significantly associated with Hypertension.

It was observed in this study that out of 40 males, 10 i.e 25% were hypertensive and 30 i.e 75% were normotensive. Out of 107 females, 18 i.e 16.82% were hypertensive and 89 i.e 83.18% were normotensive. The relation found was significant. Similar findings were observed in study performed by Chadha SL et al[8] which states that sex was found to be significantly associated with Hypertension.

It was found that Religion and Hypertension association was not statistically significant.

It was seen that most hypertensive cases were seen in nuclear family and the association between type of family and Hypertension was found to be statistically significant.

Conclusion

The factors observed to be significantly associated with hypertension were -

- Age
- Sex
- Per capita per month income
- Type of family

Education, Religion showed no association with the hypertension.

Conflict of interest: Nil

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