## Original Article

# PREVALENCE OF HYPERTENSION AMONG ELDERLY WOMEN IN SLUMS OF SURAT CITY 

Pawar AB ${ }^{1}$, Bansal RK ${ }^{2}$, Bharodiya Paresh ${ }^{3}$ Panchal Shaishav ${ }^{4}$, Patel $\mathbf{H B}^{3}$, Padariya PK $^{3}$, Patel $\mathbf{G H}^{3}$<br>${ }^{1}$ Associate Professor, ${ }^{2}$ Professor and Head, ${ }^{3}$ Intern, ${ }^{4}$ Resident ${ }^{4}$ Intern Department of Community Medicine, SMIMER, Surat.

Correspondence: shaishjp2005@yahoo.com


#### Abstract

This screening study conducted among 105 elderly women residing among the slums of Surat city revealed the virtual absence of screening programmes for hypertension in the vulnerable segment as witnessed by detection of new and undiagnosed case of hypertension in over one thirds of those screened. The universal absence of awareness of the need for regular treatment and follow up and absence of informed decision making is indeed distressing.


Keywords: Hypertension, screening, elderly women, urban slums

## INTRODUCTION

Economic development in wealthy countries was accompanied by the emergence of NCDs as the predominant health problem. As a result, NCDs are often referred to as 'diseases of affluence'- a misleading term. A more accurate label is 'diseases of urbanization'.

Chronic non communicable diseases (NCDs) contributed to 35 of the 58 million deaths ( $60.3 \%$ ) in the world in 2005. ${ }^{1} 80$ per cent of these deaths occurred in low and middle income countries. Based on available trends, by 2020 NCDs are predicted to account for $73 \%$ of deaths and $60 \%$ of disease burden. In India, NCDs were responsible for 53 per cent of deaths and 44 per cent of disability adjusted life years lost. ${ }^{2}$

Hypertension is the commonest cardiovascular disorder, posing a major public health challenge to population in socioeconomic and epidemiological transition. It is one of the major risk factor for cardiovascular mortality, which accounts for 20-50\% of all deaths.

Developed countries are considering it as a leading cause of death but even developing countries do not lag behind in being affected by it. ${ }^{4}$ In a meta-analysis of 34 epidemiological studies from rural and urban populations of India, it was observed that hypertension is emerging as a major public health problem in India and is more prevalent among urban people compared to those of rural area. ${ }^{5}$
Demographic trends show that while the urban average growth rate stabilized at $3 \%$ over the past decade (1991-2001), the slum growth rate doubled. Projections suggest that while the urban population will double in the next 10 years, the urban poor will double in just 5 years. ${ }^{6}$
It is evident that the urban poor living in slums and slum like areas have the worst of both worlds- they adopt a more urbanized lifestyle which places them at a higher risk for NCDs and have poor access to healthcare, partly related to their poor purchasing
ability. Lack of knowledge about the morbidity, complications and the method of control of hypertension contributes to a large percentage of undetected and untreated hypertensive subjects in the community. ${ }^{7}$
This study attempts to find out extent of hypertension among elderly women in slums of Surat city.

## METHODOLOGY

This study was carried out from $15^{\text {th }}$ November 2009 through $27^{\text {th }}$ December 2009. In total, 105 women of age $>$ or $=60$ years living in urban slum areas of Surat city were selected for the study. A person was labeled as hypertensive if the systolic BP $\geq 140$ mmHg and/or diastolic $\mathrm{BP} \geq 90 \mathrm{mmHg}$ as per the JNC-VII criteria. We also included those already having hypertension based on history or clinical reports.

## RESULTS AND DISCUSSION:

The majority ( $63.8 \%$ ) were of the age group of 60 to 65 years; Hindu (51.4\%); house wife (31.4\%) or house maids (28.6\%); widowed (61.9\%); per capita income of $<$ Rs. 500 per month ( $62.6 \%$ ); normal BMI ( $38.1 \%$ ) or undernourished ( $21.9 \%$ ); illiterate ( $78.1 \%$ ) $10(9.5 \%), 18(17.1 \%), 34(32.4 \%), 43(41 \%)$ of the respondents had normal, pre HT, stage I HT, stage II HT respectively.
It is shocking to find that 77 out of 105 respondents were found to be suffering from hypertension and only 37 of these had been diagnosed earlier and were on treatment. Thus on screening it had been possible to diagnose 40 more respondents, i.e. over one thirds of the total sample to have undiagnosed hypertension in our study.
The total prevalence of hypertension was found to be $73.3 \%$ and the new case detection rate was found to be $38 \%$. Further, it is surprising to observe that merely 3 out of 95 hypertensive women had family history of hypertension, though it needs mention that 22 of these respondents did not know about any history of hypertension or otherwise in their family. Also what is most concerning was the absence of
informed decision making in all of the $100 \%$ already cases and the absence of the importance of regular follow up and treatment.
Chronic non-communicable diseases like hypertension, diabetes are recognized to exist in slums A Faridabad study had reported 15.8\% prevalence of hypertension among women in slums. ${ }^{8}$ However, our study included women more than 60 years leading to high prevalence. In a study a higher prevalence of $69 \%$ was recorded among elderly populations aged sixty and above in the urban areas during 2000. ${ }^{\text {I }}$ It is evident from a Chennai based study that prevalence of hypertension among low income group people of age $>=40$ was $54 \%$. ${ }^{10}$
Looking at the growing urban population and almost one third contribution of slum population in cities, the higher prevalence of hypertension and noncommunicable diseases is a matter of concern to national and local level health authorities.

## CONCLUSION

Higher prevalence of undiagnosed hypertension points out the need to devise comprehensive strategy for early identification and prompt treatment of hypertension to prevent its end-stage complications. This could reduce burden on health systems for their management at tertiary care institutes.

## REFERENCES

1. Strong K, Mathers C, Leeder S, Beaglehole R. Preventing chronic diseases: how many lives can we save? Lancet 2005; 366: 1578-82.
2. Reddy KS, Shah B, Varghese C, Ramadoss A. Responding to the threat of chronic diseases in India. Lancet 2005; 366: 1744-9.
3. K. Park, Park's Text Book of Preventive and Social Medicine. Jabalpur: M/s Banarsidas Bhanot, 2005.
4. Kulkarni AT. Hypertension- A silent killer. Indian Medical Gazette 1998; 32 (3): 73-77.
5. Gupta R. Meta-analysis of prevalence of hypertension in India. Indian Heart Journal 1997; 49: 43-8.
6. Catley-Carlson M, Silimperi D. Health and Environment in Urban Poor Areas: Avoiding a Crisis through Prevention-Environmental Health Program. Capsule Report, March 1996. Available at http://www.dec.org/pdf_docs/pnaby450.pdf
7. Gaurav RB, Samel DR, Kartikeyan S. Community based study on hypertension in an urban area. Antiseptic 2002; 99 (6): 216-9.
8. Anand K, et al. Are the urban poor vulnerable to noncommunicable diseases? A survey of risk factors for non-communicable diseases in urban slums of Faridabad, National Medical J of India 2007; 20(3): 115-20.
9. Hypertension study Group. Prevalence, awareness, treatment and control of hypertension among elderly in Bangladesh and India: a multicentric study. Bulletin of the WHO 2001; 79(6): 490-500.
10. Ramachandran A, Snehalatha C, Vijay V, King H. Impact of poverty on the prevalence of diabetes and its complications in urban southern India. Diabet Med. 2002; 19(2): 130-5.
