AWARENESS OF HYPERTENSION IN AN HOSPITAL BASED POPULATION

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ABSTRACT

BACKGROUND
Hypertension, known as the silent killer, is a major risk factor for cardiovascular disease. Awareness and treatment of hypertension is not appropriate in the world, and this has led to an increase in mortality and morbidity caused by uncontrolled hypertension.

AIM- This study aims to estimate awareness, treated, and controlled hypertensive and relevant predictors in an adult Hospital based populations. This study was conducted in patients attending Saveetha Dental College .

RESULT-The prevalence of hypertension was 37.3%, and the prevalence of pre-hypertension was 46.4%. 49.7% of People with hypertension were aware of their disease, and 71.5% of them were using antihypertensive drugs prescribed by physicians.

CONCLUSION -Blood pressure was controlled in 38.9% of the treated patients. In the adjusted model, older age, female sex, and history of diabetes mellitus were positively associated with higher awareness.

KEYWORDS- Hyper- blood pressure- awareness- treatement

INTRODUCTION

High blood pressure is an important risk factor for cardiovascular disease and causes 7.5 million deaths per year (12.8% of all deaths) annually [1]. The global burden of disease study suggests that systolic blood pressure is accountable for the highest proportion of lost years of life due to premature death, with 212 million years lost [2]. The high blood pressure rank in the world increased from the fourth in 1990 to the second in men and first in women in 2017 [3]. The prevalence of hypertension (HTN) in various regions of the world has been reported from 4 to 78%. In the Eastern Mediterranean region, it is on average 29.5% and in Iran 22% [4,5,6].

Among the known risk factors for non-communicable diseases, hypertension after high Body Mass Index (BMI), unhealthy diet, and high blood glucose is the fourth risk factor, which has increased by 6.7% from 2005 to 2016 [7]. Yazd Healthy Heart Project reported the prevalence of HTN 25.6% in Yazd [8]. The number of people with HTN in low-middle income countries (1.04 billion) is higher than in developed countries (694 million), which shows an increasing trend from 2000 to 2010(7.7%). However, it decreased by 2.6% in high-income countries

Despite the high prevalence, studies have shown that in the world, the percentage of unawareness, untreated, and even uncontrolled HTN is significantly high [9]. In general, 50–75% of patients with hypertension do not receive proper treatment . In Iran (2011), 43.2% of patients are aware of their illness, 34.8% of hypertensive persons are treated, and 38.6% of them are controlled which vary across provinces.

METHODS

This study was conducted among the in-patients attending Saveetha Dental College and Hospitals. This study was done during the year of 2016. The patients participated in this study was taken randomly. 100 patients was selected in which 50 males and 50 females are involved in this study. The patient involved in this study was distuributed with the questionarries. The age group of participants involved I. This study was 18-60 years and systemically healthy.

The interviewers completed a valid questionnaire and measured anthropometric and blood pressure at a hospital visit. Demographic characteristics, history of cardiovascular disease, and the relevant risk factors were recorded. Trained people in a sitting position measured physical examination and after rest, using a standard and appropriate cuff size for the participant's arm.

Awareness of hypertension was defined as a self-reported previous diagnosis of hypertension by a physician among the participants with hypertension. Unawareness of hypertension was defined by blood pressure $\geq 140/90$ mmHg without a prior diagnosis by a physician or the use of any antihypertensive drugs.

The participants who were aware of their hypertension, who answered the question: "When was the last time you referred to a doctor for your high blood pressure?", "over the past three months," were categorized in the treated group.

Controlled hypertension was defined for those taking antihypertensive medication for the management of high BP at the time of the interview. It had systolic BP < 140 mmHg and diastolic BP < 90 mmHg. Uncontrolled hypertension was defined following recommended treatment targets of systolic BP $\geq$140 mmHg and diastolic BP $\geq$90 mmHg (Including those who were aware). SBP/DBP goals recommended for Specific disease (diabetes mellitus) was < 130/80 mmHg

RESULTS

Of the total respondents, 49.2% of participants were men and 4.1% were from the rural areas; 25.7% had primary or less education; 15.7% of the participants had BSc, MSc. or doctorate degrees; 94.5% of the participants had universal health insurance. Most participants (84%) were married; 68.9% of men and 11.7% of women were employed and 74.4% of women were housewives.

Of the total 9800 participants, 1817 (18.5%) had a history of hypertension, 45.6% of those between 60 and 69 years old. Hypertension was more prevalent in women (21.9 vs. 15.2%, P < 0.0001) than men. The age-standardized prevalence of hypertension in this population was 10.5%. age and sex standardized prevalence rates of hypertension was 12.03 according to the national population census (Male: 9.2%, female: 14.2%) [8]. To enable comparison across regions, we used the World Health Organization (WHO) 'world' population for age and sex standardization . According to WHO population, the prevalence of hypertension was14.04% (male: 11.6%, female: 16.5%).

The frequency of high blood pressure was higher in people with less education. Hypertension is more common in the indigenous population compared to migrants from other provinces (19.5% vs. 13.1%, P < 0.0001). A history of two years or more of hypertension has been reported in 72.4% of patients. 28.8% of patients did not refer to the doctor for the treatment of their high blood pressure for four months or more.

DISCUSSION

The prevalence of hypertension is high among the adult population with inappropriate awareness and controlled hypertension rates. Less than half of aware patients, who were treated, had controlled blood pressure.

The results indicate that the population is among the areas with high blood pressure prevalence compared to similar studies the world [9]. The prevalence of hypertension in the world has also been reported 28.8% in high and 31.5% in low-income countries [10], indicating a worsening situation in Yazd. This might be justified by the different prevalence of risk factors due to ethnicity and lifestyle changes, or different age groups in the study. Having screening intervention programs in place, may increase the difference in the prevalence of diagnosed and treated patients across regions, as well as in one area over different years.

CONCLUSION

Half of the patients were undiagnosed, and more than half of known cases of hypertension were not controlled. It can lead to high-cost cardiovascular complications. This study represents a warning message for cardiovascular health in Yazdi adults. Health policymakers must consider new strategies for prevention. Intervention for increased screening coverage is needed, especially for men. Public awareness should be raised about hypertension and improved hypertension control under the supervision of physicians should be promoted. Implementation of family physician program for health insured persons may accelerate reaching these goals.

REFERENCES

1. Forouzanfar MH, Afshin A, Alexander LT, Anderson HR, Bhutta ZA, Biryukov S, et al. Global, regional, and national comparative risk assessment of 79 behavioral, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the global burden of disease study 2015. Lancet. 2016;388(10053):1659–1724.
2. Mouhtadi BB, Kanaan RMN, Iskandarani M, Rahal MK, Halat DH. Prevalence, awareness, treatment, control, and risk factors associated with hypertension in Lebanese adults: a cross-sectional study. Glob Cardiol Sci Pract 2018;2018(1):6.
3. Salem H, Hasan DM, Eameash A, El-Mageed HA, Hasan S, Ali R. Worldwide prevalence of hypertension: A pooled meta-analysis of 1670 studies in 71 countries with 29.5 million participants. J Am Coll Cardiol. 2018;71. 11_Suppl: A1819.
4. Kazemi T, Hajihosseini M, Mashreghimoghadam H, Azdaki N, Ziaee M. Prevalence and determinants of hypertension among Iranian adults, Birjand. Iran Int J Prev Med. 2017;8:36.
5. Feng XL, Pang M, Beard J. Health system strengthening and hypertension awareness, treatment, and control: data from the China health and retirement longitudinal study. Bull World Health Organ 2013;92:29–41.
6. Esteghamati A, Etemad K, Koohpayehzadeh J, Abbasi M, Meysamie A, Khajeh E, et al. Awareness, treatment and control of pre-hypertension and hypertension among adults in Iran. Arch Iran Med.
7. Kalani Z, Abdi H, Shahbazi L, Salimi T, Amini PM. Hypertension in the Yazd adult population. Payesh. 2011;10(1):101–7.
8. Mirzaei M, Salehi-Abargouei A, Mirzaei M, Mohsenpour MA. Cohort Profile: The Yazd Health Study (YaHS): a population-based study of adults aged 20–70 years (study design and baseline population data). Int J Epidemiol. 2017;47(3):697-68h.
9. G, Pickering T. Principles and techniques of blood pressure measurement. Cardio Clin 2010;28(4):571–586.
10. Mirzaei, M., Mirzaei, M., Bagheri, B. et al. Awareness, treatment, and control of hypertension and related factors in adult Iranian population. BMC Public Health 20, 667 (2020).