ANALYSIS OF HYPERTENSION PREVALENCE, AWARENESS, TREATMENT AND CONTROL IN HEALTH: A SURVEY ANALYSIS

[1]Dr Muhammad Bilal Jawaid, [2]Dr Ishrat Rehman, [3]Dr Hira Fatima
[1]Queen Elizabeth, the Queen Mother Hospital, [2]Lady Medical Officer, DHQ Hospital Gahkuch Ghizer, Gilgit, [3]Sheikh Zayed Hospital, Rahim Yar Khan

Abstract:
Introduction: Hypertension is a global public health issue and it contributes significantly to cardiovascular disease, kidney failure, premature deaths and disabilities. Recent evidence shows that between 1990 and 2015, there has been an increase in hypertension incidence, prevalence and deaths globally.
Objectives of the study: The basic objective of the study is to analyze the hypertension prevalence, awareness, treatment and control in health through a survey analysis.
Methodology of the study: This survey-based study was conducted in Queen Elizabeth, The Queen Mother Hospital with the collaboration of Sheikh Zayed Hospital, Rahim Yar Khan during October 2018 to December 2018. This study was conducted with the permission of ethical committee of hospital. The data was collected through different medical campus which were held in these hospitals during different times. The data was collected through a questionnaire which was based on all the demographic data and history of patients. Age, sex, marital status, education, work history, smoking, alcohol intake, and physical activity level were recorded.
Results: The data were collected from 500 patients of both genders. Among patients with hypertension, 62.3% were aware of having high blood pressure; among these patients, 75.3% were already on treatment for hypertension. Blood pressure was controlled in 22.3% of all patients with hypertension. Among those on treatment for hypertension, blood pressure was controlled in 32.3%. Among all patients, 9934 patients had no comorbid conditions like diabetes mellitus, cardiovascular disease, or chronic kidney disease.
Conclusion: It is concluded that hypertension is a rising problem in Pakistan, knowledge of the prevalence, awareness, treatment and control at the national level is limited. Although awareness and treatment rates have improved, control of hypertension among these patients was still poor at 22.1%.
Key words: *Hypertension, Cardiac, Patients, Level*

Corresponding author:
Dr Muhammad Bilal Jawaid,
Queen Elizabeth, the Queen Mother Hospital

QR code

INTRODUCTION:

Hypertension is a global public health issue and it contributes significantly to cardiovascular disease, kidney failure, premature deaths and disabilities. Ongoing evidence demonstrates that somewhere in the range of 1990 and 2015, there has been an expansion in hypertension rate, prevalence and passings internationally [1]. In Pakistan, population-based examinations have appeared in hypertension prevalence and its huge effect on stroke dismalness and mortality, in the course of the most recent four decades. In spite of this, hypertension mindfulness, treatment and control are poor in the nation [2].

Hypertension is increasingly regular in low-pay nations, where almost 80% of passings because of cardiovascular sickness happen [3]. In Pakistan, two expansive epidemiological investigation, the principal based on the 1990– 1994 National Health Survey and the second based on rustic northern regions of the nation revealed hypertension prevalence rates of 19.1% and 14%, individually [4]. Notwithstanding, given that the information gathering happened 15– 20 years back, these examinations are not delegate of the flow weight of illness [5]. Concentrates from different nations have exhibited worldwide increments in the prevalence of hypertension after some time because of population growth, maturing, and changes in social dangers [6]. In this manner, there is a need to give refreshed information on the prevalence, mindfulness, treatment, and control of hypertension in Pakistan [7].

Objectives of the study

The basic objective of the study is to analyze the hypertension prevalence, awareness, treatment and control in health through a survey analysis.

Methodology of the study

This survey-based study was conducted in Queen Elizabeth, The Queen Mother Hospital with the collaboration of Sheikh Zayed Hospital, Rahim Yar Khan during October 2018 to December 2018. This study was conducted with the permission of ethical committee of hospital.

DATA COLLECTION:

The data was collected through different medical campus which were held in these hospitals during different times. The data was collected through a questionnaire which was based on all the demographic data and history of patients. Age, sex, marital status, education, work history, smoking, alcohol intake, and physical activity level were recorded. Patients were also asked about personal and family history of hypertension, diabetes mellitus, cardiovascular disease, and chronic kidney disease.

Statistical analysis

All the data were analyzed using SPSS (version 16.0). All the data were expressed through mean and standard deviation.

RESULTS:

The data were collected from 500 patients of both genders. Among patients with hypertension, 62.3% were aware of having high blood pressure; among these patients, 75.3% were already on treatment for hypertension. Blood pressure was controlled in 22.3% of all patients with hypertension. Among those on treatment for hypertension, blood pressure was controlled in 32.3%. Among all patients, 9934 patients had no comorbid conditions like diabetes mellitus, cardiovascular disease, or chronic kidney disease.

Table 01: Social, personal, and family history of medical diseases of participants of health screening camps.

	All Patients (%)	Patients with hypertension	Hypertensive patients with awareness of hypertension	Hypertensive patients with control of hypertension
Physical activity (min/d)				
None	1.5	98 (47.5)	72 (73.4)	26 (26.5)
<30	6.5	440 (49.5)	300 (68.2)	106 (24.1)
30–60	15.9	916 (41.9)	584 (26.7)	160 (17.5)
>60	76	3350 (32.2)	2040 (19.5)	768 (22.9)
Smoking				
Yes	20.7	834 (29.2)	470 (56.3)	170 (20.3)
No	79.2	3972 (36.5)	2524 (63.5)	890 (22.4)
Body mass index (kg/m²)				
<18.5	6	192 (23.5)	110 (57.2)	78 (40.6)
18.5–24.9	37.1	1288 (25.2)	788 (61.1)	324 (25.1)

25–29.9	34.1	1700 (37.9)	1022 (60.1)	352 (20.7)
⩾30	20.3	1426 (51)	928 (65)	248 (17.3)
Diabetes mellitus				
Yes	15.5	1282 (60)	986 (76.9)	308 (24)
No	84.4	3530 (30.4)	2014 (57.1)	754 (21.3)
Cardiovascular disease				
Yes	4	394 (72.4)	370 (94)	134 (34)
No	96	4418 (34)	2700 (61.1)	928 (21)
Chronic kidney disease				
Yes	13.2	898 (49.4)	680 (75.7)	240 (27)
No	86.7	3914 (33.)	2320 (59.3)	822 (21)
Family history of hypertension				
Yes	46.1	2668 (42.1)	1858 (73.4)	772 (25.2)
No	53.9	2140 (28.9)	1038 (48.2)	388 (18.1)
Family history of cardiovascular disease				
Yes	3.1	1258 (40)	894 (71)	328 (26)
No	76.9	3550 (33.8)	2102 (59.2)	732 (21)

Age, BMI, family history of hypertension, and individual history of chronic kidney disease, diabetes mellitus, and cardiovascular disease were associated with a diagnosis of hypertension. Male sex and being a worker were inversely associated with a diagnosis of hypertension.

Table 02: Multiple regression analysis showing 95% confidence intervals (CIs) of statistically significant variables associated with hypertension.

	Unadjusted OR (95% CI)	*p*	Adjusted OR (95% CI)	*p*
Age	1.045 (1.041–1.049)	<0.001	1.048 (1.043–1.053)	<0.001
Male sex	0.62 (0.56–0.68)	<0.001	0.71 (0.59–0.84)	<0.001
Working	0.58 (0.52–0.64)	<0.001	0.83 (0.71–0.98)	0.03
Family history of HTN	1.79 (1.62–1.97)	<0.001	2.04 (1.80–2.30)	<0.001
History of chronic kidney disease	1.99 (1.73–2.29)	<0.001	1.85 (1.57–2.17)	<0.001
History of diabetes mellitus	3.41 (2.98–3.90)	<0.001	1.95 (1.68–2.27)	<0.001
History of cardiovascular disease	5.2 (3.97–6.82)	<0.001	2.98 (2.20–4.0)	<0.001
Body mass index	1.08 (1.07–1.09)	<0.001	1.06 (1.05–1.07)	<0.001

DISCUSSION:

Hypertension prevalence was higher among those who were formerly married and this is similar to what other studies have shown. Studies have demonstrated that individuals who are separated, bereft or isolated have more unfortunate cardiovascular health results contrasted with wedded people [8]. Especially, marriage has been believed to be defensive against cardiovascular results [9]. Clarifications for high rate of hypertension prevalence among the individuals who were in the past hitched might be that they likely had low access to salary and health care offices [10]. Research has demonstrated that individuals in marriage have better nature of health because of better access to salary and health protection, and larger amount of social help which keeps them from taking part in unsafe practices [11].

Hypertension was likewise observed to be progressively common among those with higher riches status and those living in urban territories [12]. Research has appeared financial status may shape the ways of life of people and which may incline them to hypertension [13]. This is in opposition to a meta-examination, which demonstrated that low financial status is related with higher hypertension [14].

CONCLUSION:

It is concluded that hypertension is a rising problem in Pakistan, knowledge of the prevalence, awareness, treatment and control at the national level is limited. Although awareness and treatment rates have improved, control of hypertension among these patients was still poor at 22.1%. Further study is needed to determine hypertension prevalence,

treatment, and control rates in well-designed population-based studies.

REFERENCES:

1. Liu LS, Gong LL (2005) Chinese guideline of hypertension treatment and prevention: The Guideline Revised Version Committee of Chinese Hypertension Treatment and Prevention. Minister of Health, People's Republic of China, Treatment and Prevention Research Center of Minister of Health, Hypertension Alliance (China). Beijing: Ding-Xiang-Yuan Medical Forum Publishing.
2. Whitworth JA; World Health Organization, International Society of Hypertension Writing Group (2003) 2003 World Health Organization (WHO)/International Society of Hypertension (ISH) statement on management of hypertension. J Hypertens 21: 1983-1992.
3. D'Agostino RB Sr, Vasan RS, Pencina MJ, Wolf PA, Cobain M, et al. (2008) General cardiovascular risk profile for use in primary care: the Framingham Heart Study. Circulation 117: 743-753.
4. Kearney PM, Whelton M, Reynolds K, Whelton PK, He J (2004) Worldwide prevalence of hypertension: a systematic review. J Hypertens 22: 11-19.
5. Liu LS, Wang W, Yao CH (2009) Chinese guideline for the prevention and treatment of hypertension. Joint issue by Ministry of Health, Bureau for Disease Prevention & Control, Center of National Cardiovascular Diseases and Chinese Hypertension Alliance. Beijing: Ding-Xiang-Yuan Medical Forum Publishing.
6. Wu Y, Huxley R, Li L, Anna V, Xie G, et al. (2008) Prevalence, awareness, treatment, and control of hypertension in China: data from the China National Nutrition and Health Survey 2002. Circulation 118: 2679-2686.
7. Sit WH, Li SJ, Zheng YL, Wong MYE, Wu ZP, et al. (2010) Prevalence and Risk Factors Associated With Prehypertension: Identification of Foci for Primary Prevention of Hypertension. J Cardiovas Nur 25: 461-469.
8. Polit DF, Beck CT (2008) Nursing research: generating and assessing evidence for nursing practice (8th edn), Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia.
9. Borg G (1998) Borg's Perceived Exertion and Pain Scales.Human Kinetics, Champaign.
10. World Health Organization (WHO) (2011) Global strategy on diet, physical activity and health: Physical activity.
11. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, et al. (2003) The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the 2167-1168 7 report. JAMA 289: 2560-2572.
12. Gu D, Reynolds K, Wu X, Chen J, InterASIA Collaborative Group et al. (2002) Prevalence, awareness, treatment, and control of hypertension in china. Hypertension 40: 920-927.
13. PRC National Blood Pressure Survey Cooperative Group (1995) Prevalence and development trends of hypertension in China (in Chinese). Chinese Journal of Hypertension S1.
14. J. Coresh, G.L. Wei, G. McQuillan, F.L. Brancati, A.S. Levey, C. Jones, *et al.* Prevalence of high blood pressure and elevated serum creatinine level in the United States: findings from the third National Health and Nutrition Examination Survey (1988–1994). Arch Intern Med, 161 (2001), pp. 1207-1216