



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2597583>Available online at: <http://www.iajps.com>

Research Article

**ANALYSIS OF DIFFERENT RISK FACTORS INFLUENCING
BLOOD PRESSURE LEVELS IN POPULATION OF PAKISTAN**Dr Syed Basit Azeem¹, Dr Mohsin Maqsood¹, Dr Anum Yamin¹¹DHQ Hospital Narowal**Article Received:** December 2018 **Accepted:** February 2019 **Published:** March 2019**Abstract:**

Introduction: Hypertension is a noteworthy hazard factor for various genuine health conditions, including cardiovascular ailment, cerebrovascular malady, and constant kidney illness.

Aim of the study: The basic aim of the study is to find the different risk factors influencing blood pressure levels in population of Pakistan.

Methodology of the study: This cross sectional study was conducted at DHQ hospital Narowal during 2018. The data was collected from 100 patients which was suffering from high blood pressure and any kind of heart issue. We collect some demographic information regarding age, sex, socio-economic status and history of blood pressure. Then in second part we collect data regarding high blood pressure and heart issues. For this purpose we prepare a questionnaire and fill that from patients.

Results: There are number of factors which influence on blood pressure levels. Age, cholesterol, BMI and diet are the main factors which directly effect on blood pressure levels. Table 01 shows the values of control group and diseased group which was suffering from the low and high blood pressure problems.

Conclusion: It is concluded that there are several factors which are responsible of elevation and decreasing blood pressure but the diet is the main factor which directly influence on the levels of blood pressure.

Key words: High, Blood, Hypertension, Youth

Corresponding author:

Dr. Syed Basit Azeem,

DHQ Hospital Narowal

QR code



Please cite this article in press Syed Basit Azeem et al., *Analysis Of Different Risk Factors Influencing Blood Pressure Levels In Population Of Pakistan.*, Indo Am. J. P. Sci, 2019; 06(03).

INTRODUCTION:

Hypertension is a noteworthy hazard factor for various genuine health conditions, including cardiovascular ailment, cerebrovascular malady, and constant kidney illness. Worldwide, 9.4 million passing are credited to difficulties from hypertension, including 45% of all passing because of coronary vein illness and 51% of all passing because of stroke [1]. These relations are steady in the two people, in youthful, moderately aged, and more seasoned subjects, among different racial and ethnic gatherings, and inside and between nations [2]. In spite of the fact that there is a continuum of cardiovascular hazard crosswise over levels of circulatory strain, the characterization of grown-ups as indicated by pulse gives a system to differentiating levels of hazard related with different circulatory strain classes and for characterizing treatment edges and helpful objectives [3].

Despite the fact that subjects with high-ordinary circulatory strain are probably going to have a hoisted danger of cardiovascular infection (given the continuum of hazard), there is a scarcity of data in regards to the supreme and relative dangers of cardiovascular ailment in these people [4]. In spite of the fact that information on deadly coronary occasions and strokes in people with high typical circulatory strain are accessible, data on the danger of nonfatal cardiovascular occasions among individuals in this pulse class is restricted [5].

Elevated blood pressure (BP) is a causal risk factor for cardiovascular disease (CVD). In addition, randomized clinical trials among people with hypertension have illustrated, in total, a decrease in CVD occasions by 20%, coronary illness (CHD) by 17%, stroke by 27%, and heart disappointment by 28% for each 10 mm Hg systolic BP (SBP) bringing down with medicinal treatment [6].

Aim of the study

The basic aim of the study is to find the different risk factors influencing blood pressure levels in population of Pakistan.

METHODOLOGY OF THE STUDY:

This cross sectional study was conducted at DHQ hospital Narowal during 2018. The data was collected from 100 patients which was suffering from high blood pressure and any kind of heart issue. We collect some demographic information regarding age, sex, socio-economic status and history of blood pressure. Then in second part we collect data regarding high blood pressure and heart issues. For this purpose we prepare a questionnaire and fill that from patients.

Statistical analysis

Student's t-test was performed to evaluate the data. The relations of BP to other variables were analyzed by linear regression and Pearson correlation coefficients. Multiple regression analysis studied the interdependence of these relations among variables found to correlate significantly with BP. Data are expressed as the mean \pm SD.

RESULTS:

There are number of factors which influence on blood pressure levels. Age, cholesterol, BMI and diet are the main factors which directly effect on blood pressure levels. Table 01 shows the values of control group and diseased group which was suffering from the low and high blood pressure problems. Figure 01 explains graphically the role of diet in the level of blood pressure.

Table 01: Statistical analysis values of Control group and diseased group

Variable	Diseases Group	Control Group	t Value	p Value
Age (Year)	56.56 \pm 8.46	53.64 \pm 8.36	1.716	0.081
BMI (kg/m ²)	24.31 \pm 2.26	23.37 \pm 2.09	2.195	0.031
SBP (mmHg)	140.36 \pm 15.70	116.53 \pm 13.46	8.248	0.000
DBP (mmHg)	87.94 \pm 10.69	75.81 \pm 9.94	5.967	0.000
PP (mmHg)	52.42 \pm 12.87	40.72 \pm 8.74	5.426	0.000
FBG (mmol/)	5.12 \pm 0.65	5.06 \pm 0.49	1.764	0.081
TG (mmol/L)	1.74 \pm 0.75	1.69 \pm 0.86	1.838	0.071
TC (mmol/L)	4.95 \pm 0.76	4.88 \pm 0.82	1.712	0.090
HDL-	1.30 \pm 0.43	1.31 \pm 0.56	1.717	0.089
LDL-C	3.46 \pm 0.58	3.38 \pm 0.66	1.139	0.266

DISCUSSION:

High blood pressure was the leading risk factor for the overall global burden of disease in 2010. The recent decrease in cardiovascular mortality in high-income countries has been associated with a rise in the numbers of patients living with cardiovascular disease, and the wider use of preventive drugs [7]. Thus, an up-to-date understanding of the associations of blood pressure with different non-fatal and fatal cardiovascular disease outcomes would help to refine strategies for primary prevention and inform the design of future clinical trials [8].

The Prospective Studies Collaboration meta-analysis of 61 cohorts recruited between 1950 and 1990 reported log-linear associations of systolic and diastolic blood pressure with death from ischaemic heart disease and stroke, with no apparent threshold below which no further reduction in risk is observed, down to a blood pressure of 115/75 mm Hg, in participants aged 40–89 years [10]. These findings predated several public health initiatives, including efforts to reduce salt consumption and tobacco use, and the more widespread use of blood pressure-lowering treatments for primary prevention, and did not provide information about major chronic and non-fatal diseases, including heart failure, peripheral arterial disease, abdominal aortic aneurysm, and stable angina [11].

CONCLUSION:

It is concluded that there are several factors which are responsible of elevation and decreasing blood pressure but the diet is the main factor which directly influence on the levels of blood pressure.

REFERENCES:

1. Lim SS, Vos T, Flaxman AD. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*. 2012;380:2224–2260
2. Hippisley-Cox J, Coupland C, Robson J, Brindle P. Derivation, validation, and evaluation of a new QRISK model to estimate lifetime risk of cardiovascular disease: cohort study using QResearch database. *BMJ*. 2010;341:c6624.
3. Lloyd-Jones DM, Leip EP, Larson MG, Vasan RS, Levy D. Novel approach to examining first cardiovascular events after hypertension onset. *Hypertension*. 2005;45:39–45.
4. Herrett E, Shah AD, Boggon R. Completeness and diagnostic validity of recording acute myocardial infarction events in primary care, hospital care, disease registry, and national mortality records: cohort study. *BMJ*. 2013;346:f2350.
5. Gallagher AM, Puri S, van Staa TP. Linkage of the General Practice Research Database (GPRD) with other data sources. *Pharmacoepidemiol Drug Saf*. 2011;20:S230–S367.
6. Beckett N, Peters R, Tuomilehto J, the HYVET Study Group. Immediate and late benefits of treating very elderly people with hypertension: results from active treatment extension to hypertension in the very elderly randomised controlled trial. *BMJ*. 2012;344:d7541.
7. Murabito JM, Evans JC, Nieto K, Larson MG, Levy D, Wilson PW. Prevalence and clinical correlates of peripheral arterial disease in the Framingham Offspring Study. *Am Heart J*. 2002;143:961–965.
8. Goff DC, Jr, Lloyd-Jones DM, Bennett G. 2013 ACC/AHA guideline on the assessment of cardiovascular risk: a report of the American College of Cardiology/American Heart Association Task Force on practice guidelines. *J Am Coll Cardiol*.
9. JBS3 Board. Joint British Societies' consensus recommendations for the prevention of cardiovascular disease (JBS3) *Heart*. 2014;100(suppl 2):ii1–i67.
10. Selvin E, Erlinger TP. Prevalence of and risk factors for peripheral arterial disease in the United States: results from the National Health and Nutrition Examination Survey, 1999–2000. *Circulation*. 2004;110:738–743
11. Azhar S, Hassali MA, Ibrahim MI, et al. The role of pharmacists in developing countries: the current scenario in Pakistan. *Hum Res Health*. 2009;7:54.