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**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3819644>Available online at: <http://www.iajps.com>**Research Article****HIGH BLOOD PRESSURE AND ITS IMPACT ON HEART
STROKE IN PAKISTAN**Dr. Madeeha Afaq¹, Dr. Misbah Batool¹, Dr. Irum Balooch¹¹Nishtar Hospital, Multan

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Abstract:

Objectives of the study: The main objective of the study is to find the relationship of high blood pressure and heart stroke in Pakistan. **Methodology of the study:** This cross-sectional study was conducted at Nishtar Hospital, Multan during January 2019 to July 2019. This research will help towards next findings of effect of blood pressure in high blood pressure and cardiovascular diseases. **Results:** The data shows that there is a significant relationship between high blood pressure and CVD. There is also some positive relationship between socio-economic status and high blood pressure with respect to CVD. **Conclusion:** In conclusion, Increase in number of deaths due to cardiovascular diseases in recent years diverted researchers' attention to prevention and controlling of HBP which is a leading cause of cardiovascular diseases.

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INTRODUCTION:

High blood pressure (HBP) is a leading major risk factor for chronic diseases and deaths. The prevalence of patients with high blood pressure (HT) had reached from 600 million in 1980 to one billion in 2008.¹ The prevalence of HBP was approximately 40% among adults of 25 years and above in 2008. Approximately 7.5 million people (12.8% of all-cause deaths) die every year due to HBP. It is estimated that HT is responsible for 45% of deaths due to heart diseases and 51% of deaths due to stroke. HBP consists of 3.7% of Disability Adjusted Life Years¹. Even prehigh blood pressure (PreHT) increases mortality risk due to cardiovascular and stroke-related diseases.

High blood pressure is a significant public health problem, with a worldwide prevalence of 40.8% and a control rate of 32.3. High blood pressure is a noteworthy hazard factor for various genuine health conditions, including cardiovascular ailment, cerebrovascular malady, and constant kidney illness¹. Worldwide, 9.4 million passing are credited to difficulties from high blood pressure, including 45% of all passing because of coronary vein illness and 51% of all passing because of stroke². 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. 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 objectives³.

Objectives of the study

The main objective of the study is to find the relationship of high blood pressure and heart stroke in Pakistan.

METHODOLOGY OF THE STUDY:

This cross-sectional study was conducted at Nishtar Hospital, Multan during January 2019 to July 2019. The data was collected from 100 patients which was suffering from high blood pressure and any kind of heart issue. We collect the data in two sections, as first of all 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

A chi-square test was used to examine the difference in the distribution of the fracture modes (SPSS 19.0 for Windows, SPSS Inc., USA).

RESULTS:

The data shows that there is a significant relationship between high blood pressure and CVD. There is also some positive relationship between socio-economic status and high blood pressure with respect to CVD. Table 01 shows the values of use of drug and other factors.

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

Characteristics	Current blood pressure level			
	Normal	PreHT	HT	Total
HT medication	n (%)^a	n (%)^a	n (%)^a	n (%)^b
Using regular	94 (22.9)	188 (45.9)	128 (31.2)	410 (84.5)
Using irregular	11 (14.7)	36 (48.0)	28 (37.3)	75 (15.5)
HT training	$X^2 = 2.80$ P = 0.247			
Not received	73 (23.4)	140 (44.9)	99 (31.7)	312 (64.3)
Received	32 (18.5)	84 (48.6)	57 (32.9)	173 (35.7)
Alternative or complementary medicine	$X^2 = 1.61$ P = 0.447			
Not admitted	65 (22.4)	126 (43.4)	99 (34.1)	290 (59.8)
Admitted	40 (20.5)	98 (50.3)	57 (29.2)	195 (40.2)
Exercise level	$X^2 = 2.24$ P = 0.327			
Not exercising	52 (20.6)	116 (46.0)	84 (33.3)	252 (52.0)
Inadequate	17 (21.0)	40 (49.4)	24 (29.6)	81 (16.7)
Adequate	36 (23.7)	68 (44.7)	48 (31.6)	152 (31.3)
Fruit and vegetable consumption	$X^2 = 0.96$ P = 0.916			
Not eat every day	23 (20.4)	51 (45.1)	39 (34.5)	113 (23.3)
One meal per day	19 (18.1)	55 (52.4)	31 (29.5)	105 (21.6)
Two meals per day	17 (18.9)	35 (38.9)	38 (42.2)	90 (18.6)
≥ 3 meals per day	46 (26.0)	83 (46.9)	48 (27.1)	177 (36.5)

Salt consumption habits	$X^2 = 9.17 P = 0.164$			
Normal/more salty	47 (24.2)	84 (43.3)	63 (32.5)	194 (40.0)
Less salty	33 (19.8)	81 (48.5)	53 (31.7)	167 (34.4)
Salt less	25 (20.2)	59 (47.6)	40 (32.3)	124 (25.6)
How to continue BP	$X_2 = 1.61 p = 0.807$			
Normal	84 (25.8)	163 (50.0)	79 (24.2)	326 (67.2)
High	11 (8.7)	43 (34.1)	72 (57.1)	126 (26.0)
Unstable	10 (30.3)	18 (54.5)	5 (15.2)	33 (6.8)
HT duration	$X_2 = 52.69 P < 0.001$			
< 5 years	33 (21.0)	69 (43.9)	55 (35.0)	157 (32.4)
5–9 years	38 (31.7)	47 (39.2)	35 (29.2)	120 (24.7)
10–14 years	20 (20.4)	46 (46.9)	32 (32.7)	98 (20.2)
≥ 15 years	14 (12.7)	62 (56.4)	34 (30.9)	110 (22.7)
	$X_2 = 14.43 p = 0.025$			
Total	105 (21.6)	224 (46.2)	156 (32.2)	485 (100.0)

DISCUSSION:

There are some limitations to our study. Firstly, the study population consisted of residents in Pakistan. Secondly, the study enrolled only subjects from primary health centers, thus the data in hand can't reflect hypertensive subjects applied to secondary or tertiary health centers. Thirdly, this is a cross-sectional study based on claims of subjects, thus the answers of subjects may be biased⁸.

Our approach to understand disease development in early life, identify key pathways of interest in predisposition to high blood pressure and develop specific preventive approaches has been to use multi-modality imaging to capture information on cardiovascular structure and function 'from heart to capillary'⁹. With this approach it becomes possible to model the interrelationship between features of the cardiovascular system and, with longitudinal data, study the progression of disease across vessel and heart. By extending the data collection to other organs such as brain and liver, a holistic view of disease development can be captured¹⁰.

CONCLUSION:

It is concluded that, Increase in number of deaths due to cardiovascular diseases in recent years diverted researchers' attention to prevention and controlling of HBP which is a leading cause of cardiovascular diseases

REFERENCES:

- 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 QRisk database. *BMJ*. 2010;341:c6624.
- Lloyd-Jones DM, Leip EP, Larson MG, Vasan RS, Levy D. Novel approach to examining first cardiovascular events after high blood pressure onset. *High blood pressure*. 2005;45:39–45.

- 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.
- 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.
- Beckett N, Peters R, Tuomilehto J, the HYVET Study Group. Immediate and late benefits of treating very elderly people with high blood pressure: results from active treatment extension to high blood pressure in the very elderly randomised controlled trial. *BMJ*. 2012;344:d7541.
- 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.
- 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*.
- JBS3 Board Joint British Societies' consensus recommendations for the prevention of cardiovascular disease (JBS3) *Heart*. 2014;100(suppl 2):ii1–i67.
- 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
- 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.