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Research Article

**ANALYSIS OF RELATIONSHIP OF HIGH BLOOD
PRESSURE AND HEART STROKE AMONG YOUNG
POPULATION OF PUNJAB**

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Article Received: November 2019 **Accepted:** December 2019 **Published:** January 2020**Abstract:**

High blood pressure is a significant public health problem, with a worldwide prevalence of 40.8% and a control rate of 32. The main objective of the study is to analyse the relationship of high blood pressure and heart stroke among young population of Punjab. This cross-sectional study was conducted in health department Punjab during 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. 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. 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 is a significant public health problem, with a worldwide prevalence of 40.8% and a control rate of 32. 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.

Elevated blood pressure (BP) is a causal risk factor for cardiovascular disease (CVD). In addition, randomized clinical trials among people with high blood pressure 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. In this manner, counteractive action, location, treatment, and control of lifted BP, and its clinical connect high blood pressure, is a critical general health need and an essential focus for CVD aversion⁸.

Objectives of the study

The main objective of the study is to analyse the relationship of high blood pressure and heart stroke among young population of Punjab.

METHODOLOGY OF THE STUDY:

This cross sectional study was conducted in health department Punjab during 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

Student's t-test was performed to evaluate the differences in roughness between group P and S. Two-way ANOVA was performed to study the contributions. 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) |

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:

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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