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Research Article

**HYPERTENSION IS THE RISK FACTOR OF HEART
DISEASE AMONG YOUNG PEOPLE**Qaisar Nazeer Khattak¹, Wasim Khan¹, Afnan Ullah Khan¹¹Khyber Medical College Peshawar.**Article Received:** March 2020**Accepted:** April 2020**Published:** May 2020**Abstract:**

Introduction: Hypertension is associated with increased risks of stroke, ischemic heart disease, heart failure, kidney disease, and premature mortality. **Aims and objectives:** The basic aim of the study is to analyse the hypertension as the risk factor of heart disease among young people. **Material and methods:** This cross sectional study was conducted in Khyber teaching hospital during March 2019 to December 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. **Results:** The data shows that there is a significant relationship between hypertension and CVD. The majority of young adults with hypercholesterolemia, hypertension, or diabetes had only a single risk factor; however, there was significant overlap among individuals with borderline levels of these risk factors. **Conclusion:** In conclusion, the current hypertension paradigm does not account for the continuous risk associated with elevated BP or the multifactorial nature of CVD, the primary consequence of elevated BP.

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INTRODUCTION:

Hypertension is associated with increased risks of stroke, ischemic heart disease, heart failure, kidney disease, and premature mortality. In China, the prevalence of hypertension among adults aged 18 years and older is substantial. While more common in the older population, an increasing incidence in the younger population is being observed [1]. However, young adults meeting hypertension diagnostic criteria have a lower prevalence of a hypertension diagnosis than middle-aged and older adults. So identifying young individuals who present with a greater risk for developing hypertension may help target public health prevention efforts [2]. Young adults with cardiovascular risk factors are at increased risk of CHD later in life, and even borderline levels of these risk factors are associated with atherosclerotic changes that persist into adulthood [3]. Moreover, studies have shown that individuals who reach middle-age with favorable levels of major cardiovascular risk factors have a significantly lower incidence of cardiovascular disease and greater longevity, highlighting the imperative for recognizing and treating cardiovascular risk factors early in life [4].

As a result, many guidelines now recommend universal screening for hypertension and hyperlipidemia in children and adolescents. By contrast, screening for cardiovascular risk factors in young adults is recommended primarily among patients with identified CHD risk factors [5]. Young people encounter intense pressure regarding any changes in the economy, which is a main factor of many chronic diseases. However, to our knowledge, few studies focus on the changes of chronic diseases on the young people in this area, particularly hypertension [6].

Aims and objectives

The basic aim of the study is to analyse the hypertension as the risk factor of heart disease among young people.

MATERIAL AND METHODS:

This cross-sectional study was conducted in Khyber teaching hospital during March 2019 to December 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. Consistent with the definition at the time of the analysis, hypertension was defined as an average systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg or current self-reported use of antihypertensive medication. Borderline hypertension was defined as an average blood pressure of 120–139 mmHg systolic or 80–89 mmHg diastolic.

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 hypertension and CVD. The majority of young adults with hypercholesterolemia, hypertension, or diabetes had only a single risk factor; however, there was significant overlap among individuals with borderline levels of these risk factors. There is also some positive relationship between socio-economic status and hypertension with respect to CVD. Table 01 shows the value of LDL, HDL, Cholesterol and demographic values of patients.

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

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

DISCUSSION:

Our approach to understand disease development in early life, identify key pathways of interest in predisposition to hypertension and develop specific preventive approaches has been to use multi-modality imaging to capture information on cardiovascular structure and function 'from heart to capillary' [7]. 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 captured [8].

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 [9-10]. 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 [11].

CONCLUSION:

In conclusion, the current hypertension paradigm does not account for the continuous risk associated with elevated BP or the multifactorial nature of CVD, the primary consequence of elevated BP.

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