PREVALENCE OF HYPERTENSION AMONG OUTDOOR PATIENTS

AUTHORS:
1. DR. HAFIZ MUHAMMAD AFFIF, RAWALPINDI MEDICAL UNIVERSITY
2. DR. ABDUL QADER, THQ HOSPITAL MANKERA, DISTRICT BHAKKAR PUNJAB
3. DR. MOAZZAM RAZZAQ, THQ HOSPITAL GUJAR KHAN

ABSTRACT:
Hypertension (HTN or HT), also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. Long-term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, atrial fibrillation, peripheral arterial disease, vision loss, chronic kidney disease, and dementia. This cross-sectional study was conducted among outdoor patients presenting in different hospitals. The blood pressure and presence or absence of any kind of symptoms were noticed. All the data was entered and analyzed with SPSS Ver. 23.0. There were 130 patients that were included in this study. The mean age of the patients was 32.12±7.3 years. There were 60 (46.15%) males and 70 (53.85%) females included in this study. Out of 130 patients, only 45 patients had hypertension i.e., blood pressure ≥120/80mmHg. Out of these 45, 21 were already taking medication for this disease.

KEYWORDS: HYPERTENSION
INTRODUCTION:

Hypertension (HTN or HT), also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. High blood pressure typically does not cause symptoms. Long-term high blood pressure, however, is a major risk factor for coronary artery disease, stroke, heart failure, atrial fibrillation, peripheral arterial disease, vision loss, chronic kidney disease, and dementia.

High blood pressure is classified as primary (essential) hypertension or secondary hypertension. About 90–95% of cases are primary, defined as high blood pressure due to nonspecific lifestyle and genetic factors. Lifestyle factors that increase the risk include excess salt in the diet, excess body weight, smoking, and alcohol use. The remaining 5–10% of cases are categorized as secondary high blood pressure, defined as high blood pressure due to an identifiable cause, such as chronic kidney disease, narrowing of the kidney arteries, an endocrine disorder, or the use of birth control pills.

Blood pressure is expressed by two measurements, the systolic and diastolic pressures, which are the maximum and minimum pressures, respectively. For most adults, normal blood pressure at rest is within the range of 100–130 millimeters mercury (mmHg) systolic and 60–80 mmHg diastolic. For most adults, high blood pressure is present if the resting blood pressure is persistently at or above 130/80 or 140/90 mmHg. Different numbers apply to children. Ambulatory blood pressure monitoring over a 24-hour period appears more accurate than office-based blood pressure measurement. Lifestyle changes and medications can lower blood pressure and decrease the risk of health complications. Lifestyle changes include weight loss, physical exercise, decreased salt intake,
reducing alcohol intake, and a healthy diet. If lifestyle changes are not sufficient then blood pressure medications are used. Up to three medications can control blood pressure in 90% of people. The treatment of moderately high arterial blood pressure (defined as >160/100 mmHg) with medications is associated with an improved life expectancy. The effect of treatment of blood pressure between 130/80 mmHg and 160/100 mmHg is less clear, with some reviews finding benefit and others finding unclear benefit. High blood pressure affects between 16 and 37% of the population globally. In 2010 hypertension was believed to have been a factor in 18% of all deaths (9.4 million globally) (1-3). The objective of this study was to see the prevalence of hypertension among the outdoor patients presenting in different hospitals.

MATERIAL OF METHODS:

This cross-sectional study was conducted among outdoor patients presenting in different hospitals. The blood pressure and presence or absence of any kind of symptoms were noticed. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:

There were 130 patients that were included in this study. The mean age of the patients was 32.12±7.3 years. There were 60 (46.15%) males and 70 (53.85%) females included in this study. Out of 130 patients, only 45 patients had hypertension i.e., blood pressure ≥120/80mmHg. Out of these 45, 21 were already taking medication for this disease.

DISCUSSION:

Hypertension results from a complex interaction of genes and
environmental factors. Numerous common genetic variants with small effects on blood pressure have been identified as well as some rare genetic variants with large effects on blood pressure. Also, genome-wide association studies (GWAS) have identified 35 genetic loci related to blood pressure; 12 of these genetic loci influencing blood pressure were newly found. Sentinel SNP for each new genetic locus identified has shown an association with DNA methylation at multiple nearby CpG sites. These sentinel SNP are located within genes related to vascular smooth muscle and renal function. DNA methylation might affect in some way linking common genetic variation to multiple phenotypes even though mechanisms underlying these associations are not understood. Single variant test performed in this study for the 35 sentinel SNP (known and new) showed that genetic variants singly or in aggregate contribute to risk of clinical phenotypes related to high blood pressure. Blood pressure rises with aging and the risk of becoming hypertensive in later life is significant. Several environmental factors influence blood pressure. High salt intake raises the blood pressure in salt sensitive individuals; lack of exercise, central obesity can play a role in individual cases. The possible roles of other factors such as caffeine consumption, and vitamin D deficiency are less clear. Insulin resistance, which is common in obesity and is a component of syndrome X (or the metabolic syndrome), also contributes to hypertension. Events in early life, such as low birth weight, maternal smoking, and lack of breastfeeding may be risk factors for adult essential hypertension, although the mechanisms linking these exposures to adult hypertension remain unclear. An increased rate of high blood uric acid has been found in untreated people with hypertension in comparison with people with normal blood
pressure, although it is uncertain whether the former plays a causal role or is subsidiary to poor kidney function. Average blood pressure may be higher in the winter than in the summer. Periodontal disease is also associated with high blood pressure. Secondary hypertension results from an identifiable cause. Kidney disease is the most common secondary cause of hypertension. Hypertension can also be caused by endocrine conditions, such as Cushing’s syndrome, hyperthyroidism, hypothyroidism, acromegaly, Conn’s syndrome or hyperaldosteronism, renal artery stenosis (from atherosclerosis or fibromuscular dysplasia), hyperparathyroidism, and pheochromocytoma (4-6).

REFERENCES:
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