Prevalence of Hypertension and Associated Factors Among Residents in Cyprus

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Abstract
Background: Hypertension is a major health problem that physicians have to face globally. It is known as the most important risk factor for cardiovascular disease.

Objectives: This study searched for the prevalence of hypertension among the residents of Cyprus.

Methods: The study involved 195 patients with or without treatment for arterial hypertension with age ranged among 34-93 years, patients examined and followed for 2 years at the medical office. Hypertension was defined as Systolic blood pressure (SBP) ≥ 140 and/or Diastolic blood pressure (DBP) ≥ 90mm Hg. Data were analysed using statistics.

Results: The overall prevalence of hypertension was 38.1% (male 42.7% and female 33.4%). The mean age of the respondents was 66.6 ± 12.4 years. 26.8% of the patients who enrolled in the study were obese. Alcohol and tobacco use were found in 33.2% and 42.2% of the population studied. Hypertension was significantly associated in age groups 45-85 years, and also being overweight or obese.

Conclusion: The above data show a high prevalence of hypertension, even in patients under anti-hypertensive treatment. Policy makers should study the need for further awareness at the primary sector preventively and implement interventions for early detection and care of hypertension, in early stage.

Keywords: Hypertension, Prevalence

Introduction
Hypertension is a global public health challenge. The higher the arterial blood pressure the harder the heart has to work in order to pump blood, thus making the heart to work too hard. It is also known as the "silent killer," because it has no specific sign and symptoms in the initial stage. Hypertension is the most important modifiable risk factor for cardiovascular disease. Hypertension is being met across every social class. Both lower-income groups and higher-income groups may develop hypertension. The etiology is multifactorial. Genetic factors, several behavioral and socioeconomic factors can put an additional risk. Metabolic risk factors like obesity, diabetes and raised blood lipids, can also contribute to the development of hypertension and its complications. Lifestyle modification is very important for the prevention and management of hypertension.

Hypertension and its complications constitute approximately 25% of emergency medical admissions in urban hospitals. Hypertension is rarely accompanied by any symptom and its identification is usually through screening, or when seeking healthcare for an unrelated problem. Screening, ideally not only detects hypertension, but also the basis for education and therapy. A prevalence rate is an important tool for assessing the burden of a health event and helps estimate its magnitude in the community. The study searched for the prevalence of hypertension among the residents of Cyprus.

Materials and Methods
The study involved 195 patients with or without treatment for arterial hypertension with age ranged among 34-93 years, who have been examined and followed for maximum 2 years at the medical office. Hypertension was defined as Systolic blood pressure (SBP) ≥ 140 and/or Diastolic blood pressure (DBP) ≥ 90mm Hg. Data were analyzed using statistics. The study participants were selected by cluster sampling technique. Data were collected and the study was executed by collecting further sociodemographic characteristics, history of hypertension, behavioral measurements, weight and height. Hypertension was defined as systolic BP (SBP) ≥140 mmHg and or diastolic BP (DBP) ≥90 mmHg, and/or self-reported treatment of hypertension with antihypertensive medication taken in the past 2 weeks.

OMRON M3 Sphygmomanometer was used for BP measurement.

The examined ones, sat on a chair with their feet flat on the floor and arm resting on a table and hence that their arm cuff was at their heart level. The cuff was securely applied to the upper arm of the participants using the fabric fastener strip. BP was taken from the left arm after at least 10 min of rest using appropriate cuff size. Participants were told to be calm and not talk while their BP was being measured. The mean of two readings taken at least 2 min apart was determined. Hypertension was defined as SBP ≥140 mmHg and/or DBP ≥90 mmHg. It was classified thus:
• Stage 1: SBP 140–159 mmHg and/or DBP 90–99 mmHg;
• Stage 2: SBP ≥160 and/or DBP ≥ 100 mmHg;
• Isolated systolic hypertension: SBP ≥140 mmHg and <90 mmHg.
Body mass index (BMI) was calculated using weight in kilogram (kg) divided by square of height in meters (m). The BMI was classified using WHO classification of BMI.

Results
The overall prevalence of hypertension was 38.1% (male 42.7% and female 33.4%). The mean age of the respondents was 66.6 ± 12.4 years. 26.8% of the patients who enrolled in the study were obese. Alcohol and tobacco use were found in 33.2% and 42.2% of the population studied. Hypertension was significantly associated in age groups 45-85 years, and also being overweight or obese. The frequency distribution of BP check among the respondents was as follow: 24.0% checked their BP within the past 12 months, 67% checked their BP more than a year ago, and 17.8% had never checked. The proportion of people studied who had been diagnosed of hypertension by a health professional prior to the survey was 13% and 65.1% of the above were currently on at least one antihypertensive drug. Hypertension Stage 1, Stage 2 Prevalence of hypertension was 43.8% for males and 33.3% for females. The highest prevalence was found in the age-group ≥ 65 years.

Discussion-Conclusion
A high prevalence of hypertension was recorded in this study. About one-third of the respondents were hypertensive. This finding has important public health implication as it puts one in every three adults in the community at-risk of cardiovascular disease (s). It was also found that majority of the hypertensives were not aware of their status prior to the survey. This indicates the need for urgent steps to create awareness and implement interventions for prevention and early detection of hypertension especially among those aged ≥ 30 years and the overweight/obese [1-6].

Conflicts of Interest
There are no conflicts of interest

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