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PREVALENCE OF RISK FACTORS OF PRIMARY ARTERIAL HYPERTENSION

Introduction

Arterial hypertension is defined as a stable rising of arterial pressure, systolic form above or equal to 140mmHg or either diastolic pressure up to the level from above or equal to 90mmHg on the data not less than double measuring on Korotkov's method on two or more consecutive visits of the patient with interval not less than 1 week. It is identified as one of the major non communicable health disorders and a public health challenge worldwide [1]. According to WHO, hypertension accounts for one out of eight mortalities found worldwide. The latest data estimates showed that nearly one third of the adult world population is having hypertension, from which two thirds are living in middle income and low-income countries [1, 2].

In this way, there is a need to evaluate the risk factors that contribute this clinical situation and its prevalence, because the identification of groups at higher risk of being affected by arterial hypertension signifies an important contribution to the prevention of morbidities and effectiveness of the treatment [1, 2].

There are two types of arterial hypertension. It includes, essential/primary hypertension and symptomatic/secondary hypertension. Secondary hypertension is high blood pressure that is caused by another medical condition. It can be caused by conditions that affect arteries, heart, kidneys or endocrine system. It can also occur during pregnancy [3].

Primary hypertension is a chronically proceeding disease of unknown etiology with ancestral predisposition, arising owing to interaction of genetical factors and environmental factors, characterized by stable rising of AP on the absence of organic lesion of the organs

and systems regulating it. Risk factors contributing to primary hypertension includes; family history, old age, increase alcohol consumption, lots of stress, smoking, obesity, increase daily intake of sodium, hyperlipidemia and sedentary life style [4]. It is then reconsidered to modify these factors to maintain controlled blood pressure level. It is important for the population to adopt a healthy lifestyle, not only by having a balanced diet and practice of regular physical activity, but also by frequent monitoring of blood pressure [4].

These risk factors can be classified as; modifiable and nonmodifiable. The first are those we can intervene and correct, including smoking, stress, obesity, hyperlipidemia, physical activity, excessive alcohol consumption, high sodium intake among others. A healthy lifestyle has a positive influence on all these risk factors [4, 5, 6]. The nonmodifiable risk factors are not subject to intervention, and involve the personal and family history of cardiovascular diseases.

Goal

The primary arterial hypertension comprises 95 % of hypertensive patients. Therefore, this research aims to assess the most common risk factors contributing to primary arterial hypertension [6].

Material and Methods of research

Collecting and analysing data within a time frame of 01.02.2023–27.02.2023 from 70 patients who were admitted to the cardiology department of the Gomel State hospital No. 3. Data was collected by; visiting patients, conducting general examinations, asking questions [6] and filling a questionnaire [about age, gender, height, weight, family history, alcohol consumption & smoking habits over years, stress, food habits including daily dietary consumption of salt and fats [7], exercises and physical activity levels, any other diseases present over the years], and then analysing reports [including ECG, and general blood analysis, biochemical blood analysis, general urine analysis, blood glucose, blood urea, blood cholesterol, blood bilirubin reports] and analysing treatment plans of the patients [8].

The results of the research and their discussion

After analysing the data of 70 patients who were involved in the case study, the following table is drawn representing number of patients obtained for each category of risk factors.

Table 1 – Number of patients in percentage for risk factors of primary arterial hypertension

Risk factors		Number of patients
Age	40–50	9
	51–60	15
	61–70	24
	71–80	16
	81–90	6
Gender	Male	31
	Female	39
Family history		40
High alcohol consumption		25
Smoking		29
Stress		23
Obesity		26
High sodium intake		10
Hyperlipidemia		28
Sedentary life style		40
DM type 2		25

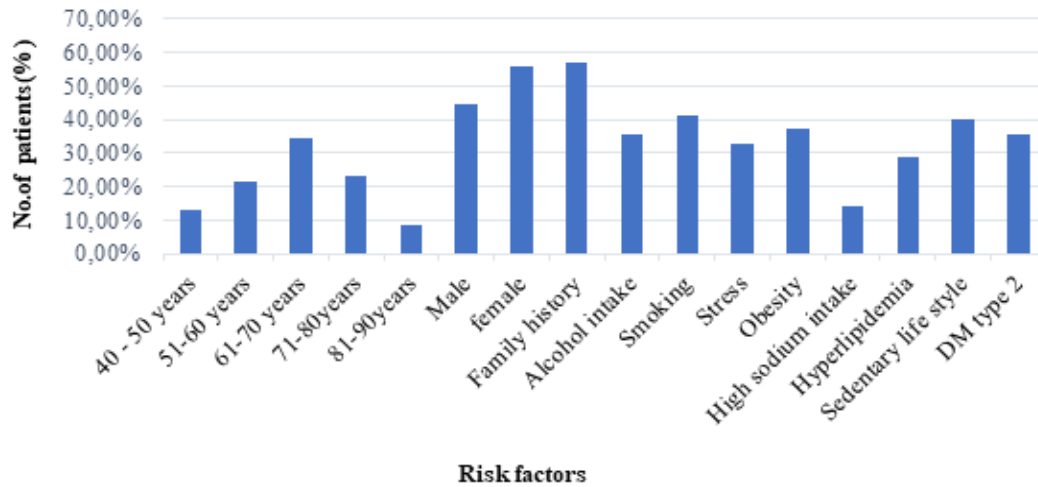From the data collected from above table following graph is plotted.

Figure 1 – Prevalence of risk factors of primary arterial hypertension

Conclusions

According to the research conducted and data collected (table 1 and figure 1) from 70 patients, the most common risk factors contributing for primary arterial hypertension are family history (57.14 %), gender-females (55.71 %), smoking (41.43 %), sedentary life style (40 %), obesity (37.14 %). And it's shown that with increasing of age increases risk of primary arterial hypertension. Patients from age 51–60 (21.43 %), 61–70 (34.29 %) and 71–80 (22.86 %).

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