

Risk Factors for Arterial Hypertension in Women Seen in a Medical Office at the Orlando Matos Mosqueda Polyclinic 2022

Rene Jorge Mena Mujica¹, Ana Ivis Estrada Casteleiro¹, Elisa Maria Puentes Rizo² and Pedro Rolando López Rodríguez^{3*}

¹First Degree Specialist in Comprehensive General Medicine, Assistant Professor, Master in Primary Health Care and Higher Medical Education, Cuba

²First and Second Degree Specialist in Comprehensive General Medicine, Assistant Professor, Master in Primary Health Care and Higher Medical Education, Cuba

³First and Second Degree Specialist in General Surgery, Assistant Professor, Assistant Researcher, Consultant Professor, Cuba

***Corresponding Author:** Rene Jorge Mena Mujica, First Degree Specialist in Comprehensive General Medicine, Assistant Professor, Master in Primary Health Care and Higher Medical Education, Cuba.

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Abstract

Introduction: Hypertension is one of the most frequent chronic diseases in Cuba. In our country the prevalence is 70% and is proportional to the years of life. More than 30% of the adult population suffers from it, causing high morbidity and mortality.

Objective: To describe the main risk factors in women with arterial hypertension of the doctor's office 2 of the Párraga health area in the year 2021.

Methods: An epidemiological, observational, descriptive and cross-sectional study was carried out in a universe of 153 female patients with arterial hypertension. Sociodemographic and epidemiological variables were studied.

Results: 39.8% corresponded to patients between 41 and 50 years old, with a weight above the normal value in 40.5% d. 62 women did not finish high school and the most frequent toxic habit was coffee consumption in 69.3%. More than 70% are heavy consumers of and salt. 58 patients had a history of medication intake, prevailing the intake of non-steroidal anti-inflammatory drugs in 18.3%.

Conclusions: The age group of 41 to 50 years prevailed, with unfinished secondary school level and housewives, a high percentage of them is above the ideal weight and coffee intake, smoking, salt consumption and the previous intake of medications continue to behave as the main risk factors in the disease.

Keywords: Arterial Hypertension; Female Gender; Cardiovascular Risk Factors; Prevention

Introduction

Arterial hypertension (HTN) is the main risk factor for the global burden of morbidity and mortality and it is estimated that it causes more than half of the annual deaths attributed to cardiovascular diseases [1], constituting one of the main risk factors related to mortality from non-communicable diseases in Cuba [2]. A large

proportion of these conditions and the premature deaths they cause can be avoided through measures aimed at controlling modifiable risk factors, such as reducing or eliminating tobacco use and improving health education aimed at controlling risk factors [3]. Between 20 and 30% of the world population suffers from AHT, so it is estimated that by 2025 there will be 1.5 billion people

diagnosed with this condition [4] and the detection and control of risk factors continues to be the strategy essential to prevent them [5]. In the American continent, about 140 million people suffer from hypertension, of which between 8 and 30% live in Latin America and the Caribbean. It is estimated that over the next 10 years there will be 20.7 million deaths from cardiovascular disease, of which some 2.4 million will be attributable to hypertension in the Americas region [6]. At the end of 2019, heart diseases continued to be the main cause of death in Cuba, occupying the first place with 26,736 deaths for a rate of 238.1 per 100,000 inhabitants and within these, ischemic diseases were the ones with the highest frequency and, secondly, hypertensive [7]. In studies carried out on the subject, a series of risk factors related to this disease are described, such as: stress, obesity, sedentary lifestyle, smoking, diet (rich in saturated fats and salt), skin color, heredity, diabetes mellitus and hypercholesterolemia [8]. For its part, the estrogen deficiency that occurs in women after menopause has also been related to an increase in cardiovascular risk [9]. In fact, the National Cholesterol Education Program recognizes postmenopausal status as a risk factor for cardiovascular disease, assigning it the same weight as being male [10]. According to the statistics indicated, the high frequency of arterial hypertension constitutes a real health problem in Cuba and according to the experience of the authors of this study, it has been possible to verify that there is no adequate and homogeneous response on the part of hypertensive patients in relation to knowledge about the importance of preventing risk factors, hence the importance of research that will allow an approach to the knowledge of the way in which they influence the disease of our patients.

Methods

An epidemiological, observational, descriptive and cross-sectional study was carried out with the objective of characterizing the main risk factors of Arterial Hypertension in hypertensive women belonging to the clinic # 2 of the Párraga Polyclinic in the year 2021. Empirical methods were used (observation, questionnaire and surveys), theoretical (analysis and synthesis, historical - logical, induction and deduction) and statistics that collected, analyzed, interpreted and presented all the information through frequency measurements. The universe consisted of 153 women over 18 years of age diagnosed with essential hypertension and who met the inclusion criteria of residing in the health area at

the time the research was carried out, who agreed to participate and who was psychologically fit. The sample matches the universe. It was explained to each of them that the results obtained in the research would be used for their presentation in scientific events and biomedical journals, and they could leave the event at any time they so requested. Sociodemographic and clinical variables were defined: age, nutritional status, schooling, toxic habits, salt intake and previous medication intake. The primary data was obtained from a questionnaire prepared by the authors. The texts and tables were processed in Microsoft Word. For the analysis and discussion of the results, descriptive statistics were preferably used, which allowed reaching the objectives of the work and reaching its final conclusions. The results were expressed through absolute numbers and percentages and represented in statistical tables.

Results

Age Groups	Quantity	%
Less Than 20	1	0,65
21-30	3	1,96
31-40	9	5,88
41-50	61	39,86
51-60	42	27,45
61 and over	37	24,18
Total	153	100,00

Table 1: Distribution of hypertensive patients according to age.

Source; Survey.

The age group from 41 to 50 years prevailed with 61 patients for 39.86% followed by the group from 51 to 60 with 27.45%. The leading level was reached from the age of 40.

Nutritional Condition	Number	%
Underweight	12	7,84
Normal Weight	79	51,63
Overweight	43	28,10
Obese	19	12,41
Total	153	100,0

Table 2: Distribution of hypertensive patients according to nutritional status.

Source: Survey.

The table above shows that 43 patients, 28.1% of all hypertensive women, have a weight above the normal value and 79 patients (51.63%) have adequate weight. Only 12 patients (7.84%) had poor nutritional status.

Education	Quantity	%
Illiterate	2	1,31
Unfinished Elementary School	3	1,96
Primary Finished	10	6,53
High School not finished	62	40,52
Unfinished pre-university	25	16,33
University	6	3,92
Total	153	100,0

Table 3: Distribution of hypertensives according to schooling.

Source: Survey.

In table number 3 it is observed that the highest percentage of the women under study have not completed secondary education, representing 40.52% of the total, only 6 (3.92%) are university students and if we add the values of primary studies unfinished, finished and illiterate, a value of 9.8% is reached.

Habits	Number	%
Smoking	47	30,7
Coffee Intake	106	69,3
No Habit	0	0
Total	153	100,0

Table 4: Distribution of hypertensive patients according to toxic habits.

Source: Survey.

The table above expresses, in relation to toxic habits, that the most frequent is coffee consumption with 69.3% and smoking with 30.7% of the total number of patients studied. About a third of all women smoke and coffee intake appears in more than 70%.

Habits	Number	%
Normal salt consumers	22	14,4
Excessive salt intake	131	85,6
Total	153	100,0

Table 5: Distribución de hipertensas de acuerdo a ingesta de sal.

Source: Survey.

It can be seen that 85.6% of our patients are heavy salt consumers, despite the etiological role of salt consumption in the development of hypertension.

Medications	Number	%
Non-steroidal anti-inflammatory	28	18,3
Steroids	3	1,9
Tricyclic antidepressants	13	8,5
Oral contraceptives	14	9,15
Total	58	38,0

Table 6: Distribution of hypertensive patients according to drug intake n = 153.

Source: Survey.

Table 6 shows the distribution according to previous intake of medications that act as a risk factor for hypertension, 58 (38.0%) patients had a history of taking one or another medication, with the intake of non-steroidal anti-inflammatory drugs prevailing in 18.3%, almost double that of oral contraceptives, which constituted 9.15% of the total.

Discussion

In the research carried out, from 40 years of age the risk of suffering from hypertension increases in the women studied. Studies confirm this result, mainly due to the loss of elasticity of the large arteries and an increase in vasoconstrictor stimuli potentiated by the increase in the thickness of the middle layer and the ventricular mass [11]. Most of our patients were in the group between 41 and 50 years old and followed by hypertensive women between 51 and 60 years old, coinciding with a study published by Hechavarria [12], who found that as age increased, so did the number of hypertensive patients. García [13], in an investigation with similar characteristics, found that 51.06% of the patients were between 40 and 59 years old, which is related to what was found in our study, and for his part, Martínez [14] published that in their casuistry, the most frequent ages of hypertensive patients corresponded to adults over 60 years of age, which does not coincide with our results. A considerable number of the women under study were overweight or obese, this being considered a primary risk factor in hypertension. A significant reduction in overweight and obesity could have prevented, in one year, the death of 3,789 Cubans, 2,511 women and 1,278 men; 940 diabetic

patients, 821 people diagnosed with cancer in the locations that were explored, and 2,024 deaths in people with cardiovascular disease [15]. According to the III risk survey carried out in Cuba [16], overweight and obesity in global terms are increasing in the Cuban population and especially in women. In a study carried out in Mexico by Iñigo Riesgo, *et al.* 33% of overweight and 30% of obesity are reported, for 63% of excess weight in women [17] and Sunchao reports 66.4% in the Polyclinic "April 19", values higher than the one found in our study, but [18]. Most of the patients that make up the study have not finished secondary education and almost a tenth of them did not finish primary studies or are illiterate. Monterrey [19] agrees with these findings, but other authors conclude that there is no significant relationship between level of schooling and adherence to treatment [20,21]. It is considered that patients with completed pre-university and university studies have a higher level of knowledge and have a greater perception more realistic of the risk that this disease implies [19]. Coffee consumption, together with smoking, constituted the most frequent toxic habits in the patients studied. Numerous studies show the risk that these constitute in hypertension [22-24] and identify them as modifiable factors related to unhealthy lifestyles [23,25]. Coffee consumption raises systolic and diastolic blood pressure figures up to 14 and 10 mm/Hg respectively with the daily consumption of 2 to 4 cups of coffee [26] and it has been shown that smoking is a factor involved in the etiopathogenesis of essential hypertension and determines a worse prognosis in hypertensive patients [27]. A large proportion of cardiovascular diseases and deaths as a result of these can be avoided if risk factors are controlled [28,29] and in the diet, reducing salt intake may be the greatest contributor to prevention [30].

Excessive consumption of sodium plays an important role in hypertension, since salt is considered one of the most harmful precursors, producing changes in the fibrocytes between smooth muscle cells, causing the accumulation of collagen in the arterial walls and as a consequence decrease in elasticity is presented [31,32]. It can also be associated with decreased kidney function caused by aging, which causes sodium retention and therefore an increase in circulatory volume [33]. It is known that the most unnoticed adverse drug reactions are not the ones that produce a disease, but those that cause worsening of a disease already treated [34] In a study on potentially inappropriate prescriptions in older adults carried out in the municipality of San Miguel del Padrón in

Havana [35], it was found that the pharmacological group most used in treatment was non-steroidal anti-inflammatory drugs, which coincides with our results.

Conclusions

Arterial hypertension was more frequent in patients aged 41-50 years with a secondary school level and with a weight above normal values. Among the toxic habits found, ingestion of coffee was the most frequent and excessive consumption of salt appears in the largest number of patients studied. The previous intake of medications was not frequent, being the consumption of non-steroidal anti-inflammatory drugs the one that prevailed.

Conflicts of Interest

The authors declare no conflicts of interest.

Authors Contribution

Pedro Rolando Lopez Rodríguez: He reviewed clinical histories and searched for bibliography. He chose the sampling method selecting the study population and analyzed and discussed the table content. He drafted the document.

- **Rene Jorge Mena Mujica:** Helped in the review of medical records and search. Bibliography, performed statistical processing, calculated arithmetic mean and standard deviation of quantitative variables.
- **Ana Ivis Estrada Casteleiro:** Performed the statistical processing, calculated and she interpreted the chi-square and associated variables according to Duncan's docima.
- **Elisa Maria Puentes Rizo:** She reviewed the literature on the subject looking for data worldwide, she designed the study methodology, classified the research, processed the information and limited the bibliographical references according to Vancouver standards.

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