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Characterization of hypertensive older adults from a medical office belonging to the Pedro Borrás polyclinic

Caracterización de adultos mayores hipertensos de un consultorio médico perteneciente al policlínico Pedro Borrás

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ABSTRACT

Introduction: High blood pressure is the chronic disease with the highest incidence in the elderly and Cuba is today one of the oldest countries in the world, with trends to increase the number of people over 60 years of age in the coming years.

Objective: to characterize older adults hypertensive patients belonging to Medical Office 12 of the Pedro Borras Polyclinic. Pinar del Río, during the period January to December 2023.

Methods: an observational, descriptive, cross-sectional investigation was carried out with a universe of 269 older adults belonging to this medical office and a sample of 191 who met the inclusion criteria and exclusion. Medical records were reviewed and descriptive statistics methods were used.

Results: the majority of hypertensive elderly people are between 60 and 69 years old (47.3%), they are female (56.0%) and have white skin (80.8%); 118 elderly people (61.9%) are prehypertensive and 40 of them (20.7%) are grade I hypertensive. The majority suffer from systolic hypertension (26.7%), of which 21.3% are controlled, with predominance in the female sex (13.0%). The most used medications to control high blood pressure were diuretics by 35.0% of the elderly.

Conclusions: the majority of hypertensive older adults are between 60 and 69 years old, are female and have white skin, with prehypertension and grade I hypertension, controlled systolic. Diuretics are the most used medications to control the disease.

RESUMEN

Introducción: la Hipertensión Arterial constituye la enfermedad crónica con mayor incidencia en los ancianos y Cuba es hoy uno de los países más envejecidos en el mundo, con tendencias al incremento del número de personas de más de 60 años de edad en los próximos años.

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Objetivo: caracterizar los adultos mayores hipertensos pertenecientes al Consultorio Médico 12 del Policlínico Pedro Borras. Pinar del Río, durante el período enero a diciembre de 2023.

Métodos: se realizó una investigación observacional, descriptiva de corte transversal, con un universo de 269 adultos mayores pertenecientes a este consultorio médico y una muestra de 191 que cumplieron con los criterios de inclusión y exclusión. Se revisaron las historias clínicas y se utilizaron métodos de la estadística descriptiva.

Resultados: la mayoría de los ancianos hipertensos tiene entre 60 y 69 años (47,3 %), pertenecen al sexo femenino (56,0 %) y son de color blanco de piel (80,8 %); 118 ancianos (61,9 %) son prehipertensos y 40 de ellos (20,7 %) son hipertensos grado I. La mayoría padece de hipertensión sistólica (26,7 %), de ellos el 21,3 % se encuentran controlados, con predominio en el sexo femenino (13,0 %). Los medicamentos más usados para controlar la hipertensión arterial fueron los diuréticos por el 35,0 % de los ancianos.

Conclusiones: la mayoría de los adultos mayores hipertensos tiene entre 60 y 69 años, son del sexo femenino y de color blanco de la piel, con prehipertensión e hipertensión grado I, sistólica controlada. Lo diuréticos son los medicamentos más usados para el control de la enfermedad.

INTRODUCTION

Aging constitutes a stage of life, which should not be considered as the terminal stage, but as part of the process in which the human being continues to be active in society.[1]

It is expected that by the year 2030, the 30th, 3% of the Cuban population are over 60 years of age and, together with Argentina and Uruguay, they will be the three oldest countries in Latin America.[2]

In response to the aging of the population, the United Nations General Assembly convened, in the years 1982 and 2002, to world assemblies to address this problem, in which a commitment was established through a political declaration and an international action plan. [3]

The Cuban population has progressively aged, which has been influenced by factors such as low fertility, increased life expectancy and migration, which has led to the adoption of measures in the economic and public health order to care for this important population segment. [4]

In the Pinar del Río province, there are 121,002 people aged 60 and over, 40,884 of them belong to the Pinar del Río municipality, 14,229 to the Pedro Borrás health area and in Medical Office 12, where this research was

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carried out, there are 269 elderly people, for 28.7% of the total population.[5] High Blood Pressure (HBP) constitutes a chronic, multi-causal disease that causes systemic vascular damage and increases the morbidity and mortality of various cardiovascular diseases. The World Health Organization (WHO) recognizes it as a public health problem because it is responsible for 45% of deaths from heart disease and 51% from cerebral vascular disease. [6, 7]

Blood pressure increases with age due to the increase in arterial stiffness, vascular remodeling, and senescence of the renal and endocrine systems, which results in an increased incidence of high blood pressure in the elderly. [8]

The objective of this research is to characterize the hypertensive elderly belonging to Medical Office 12 of the Pedro Borras Polyclinic, Pinar del Río, in the period from January to December 2023.

METHOD

An observational, descriptive cross-sectional research was developed in the period from January to December 2023, with a universe of 269 elderly people belonging to this medical office. The sample was made up of 191 who met the inclusion and exclusion criteria.

Inclusion criteria: older adults who suffer from HTN, who are willing to participate in the research and who are physically and mentally fit.

Exclusion criteria: elderly people with impaired cognitive status that does not allow them to participate in the research and those who die during the research period. The individual medical records of hypertensive older adults were reviewed to obtain the research variables: age, sex, skin color, type of arterial hypertension based on blood pressure levels (prehypertensive, Grade I, Grade II and Grade III hypertension).), type of Arterial Hypertension taking into account the type of blood pressure that is elevated (systolic, diastolic and systodiastolic), control of Arterial Hypertension (blood pressure figures equal to or less than 140/90 mmHg in all doses taken) and medications most used for the control of HTN. Elderly hypertensive patients were considered controlled when they had blood pressure levels of less than 140 mmHg systolic blood pressure and less than 90 mmHg diastolic pressure. The data were processed in Microsoft Excel 2010 (14.0) to calculate the absolute and relative percentage frequencies and store the information. The ethical standards established according to the Declaration of Helsinki were taken into account.9

RESULTS

Table 1 shows that the majority of elderly hypertensive patients were between 60 and 69 years old, 98 (51.4%) and 110 (57.5%) were female. (Table 1)

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Table 1: Distribution of elderly people according to age groups and sex. Medical Office 12 of the Pedro Borras Polyclinic, Pinar del Río, in the period from January to December 2023

Age	Sex				Total	
	Male		Female			
	No	%	No	%	No	%
60-69	45	23.5	53	27.7	98	51.4
70-79	22	11.5	41	21.4	63	32.9
80-89	12	6.2	11	5.7	23	12.1
90 y más	2	1.0	5	2.6	7	3.6
Total	81	42.4	110	57.5	191	100

Source: Clinical history Figure 1 shows that hypertensive elderly people of white skin color predominated 154 (80.6%). (Figure 1

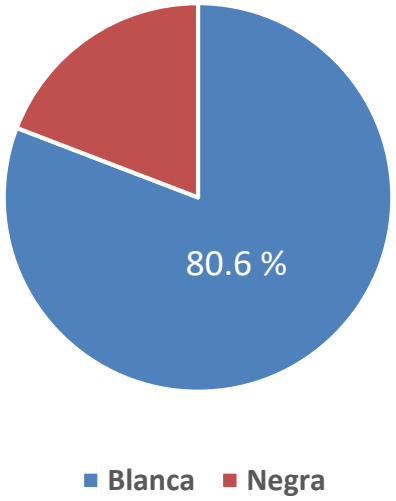

Figure 1. Skin color.

Table 2 shows that of the elderly studied, 118 (61.9%) are prehypertensive, followed by grade I hypertensive with 40 elderly (20.7%). (Table 2)

Table 2. Distribution of elderly people according to type of Arterial Hypertension based on blood pressure figures.

Kind of HTA	Sex				Total	
	Male		Female			
	No	%	No	%	No	%
Prehipertesion	56	64.4	62	59.6	118	61.9
Grade I	15	17.3	25	24.1	40	20.7
Grade II	12	13.7	15	14.4	27	14.2

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Grade III	4	4.6	2	1.9	6	3.2
Total	87	100	104	100	191	100

Source: Clinical history

Table 3 presents the distribution of older adults according to type of hypertension, control and sex, observing that of the total hypertensive elderly 73 (100%), because 118 were still prehypertensive (61.7%) 51 (69.8%) suffer from systolic hypertension, of which 41 elderly people (56.1%) are controlled, with 34 elderly people predominating (46.5%). (Table 3)

Table 3. Distribution of elderly people according to type of hypertension, control and sex.

Kind of HTA/ Sex	Controled				Parcially controled				Uncontroled				Total	
	Female		Male		Female		Male		Female		Male			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Sistolic	25	34.2	16	21.9	3	4.1	1	1.3	2	2.7	4	5.4	51	69.8
Diastolic	7	9.5	4	5.4	2	2.7	1	1.3	0	0	2	2.7	16	21.9
Sistodiastolic	2	2.7	2	2.7	1	1.3	1	1.3	0	0	0	0	6	8.3
Total	34	46.5	22	30.1	6	8.2	3	4.1	2	2.7	6	8.2	73	100

Source: Medical records

Table 4 reflects the medications most used by the elderly to control high blood pressure according to sex, in which it can be seen that diuretics were the most used by 67 elderly people (35.0%), followed by by Angiotensin Converting Enzyme (ACE) inhibitors in 51 patients (26.7%) and calcium channel blockers and beta blockers in 17 (8.9%) older adults respectively. (Table 4)

Table 4. Medications most used by the elderly to control HTN.

Medicaments	Sex				Total	
	Male		Female			
	No	%	No	%	No	%
ACE Inhibitors	22	11,5	29	15,1	51	26,7
Ca Blockers	4	2,0	13	6,8	17	8,9
Betablockers	5	2,6	12	6,2	17	8,9
Diuretics	28	14,6	39	20,4	67	35,0

DISCUSSION

Currently there are about 605 million older people worldwide and it is predicted that by 2025 this figure will double, reaching more than 1.2 billion. Estimates from the official government website of the Ministry of Public Health in Cuba reflect that life expectancy is 77 years and that the demographic picture of the nation points to

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a sustained growth in the number of people aged 60 or over.[10]

The results of this research coincide with those of Gómez Martínez N et al [11], who found that the majority of patients of geriatric age studied by them who suffer from HTN are in the sixth decade of life and of the white race, and more Half of them suffer from isolated systolic hypertension (elevated systolic pressure with normal or decreased diastolic pressure) as the most common type of HTN. Isolated systolic hypertension in the elderly was considered until more than 3 decades ago by many authors as a physiological mechanism thanks to which the elderly maintained adequate tissue perfusion pressure. Since the 1990s, it has been known that this variant of arterial hypertension exposes adults of geriatric age to all cardiovascular complications and death.[12]

Cruz Aranda JE [13], states that HTN constitutes a multifactorial syndrome that should continue to be investigated, if available. Keep in mind that its prevention and control avoids the complications it entails and the limitations to the quality of life of the elderly who suffer from it. The authors consider that various actions can be developed from primary health care to achieve control of HTN in the elderly, among which are promoting the practice of physical exercises and a healthy diet, which contribute to reducing sedentary lifestyle, overweight and avoiding stress, frequently checking blood pressure and ensuring that the elderly comply with medical treatment. The control of HBP in the elderly in this study showed a behavior similar to the results obtained by Ponce Soledispa JT et al. [14] Zubeldia Lauzurica L et al [15] found a degree of control of 18.5%, being better in women than in men. Likewise, the results related to the control of treated hypertensive patients are similar to those found in the meta-analysis carried out by Martínez Santander CJ et al.[16] where 20% were found to be controlled. The authors consider that the HTN control found in these elderly people is related to the response to the treatment carried out and the results of the application of the HTN diagnosis and control program and the Doctor and Nurse Program in Cuba. High blood pressure in the elderly constitutes a risk factor for heart failure, cerebrovascular disease, ischemic heart disease, kidney failure, as well as damage to all target organs.[17]

A study carried out by Revueltas Agüero M et al [18] in Cuba, with a sample consisting of 3847 patients aged 80 years or older with systolic blood pressure greater than 160 mm Hg treated with ACE inhibitors and diuretics or placebo had to be stopped with a follow-up of 1.8 years (median) due to the significant decrease in the incidence of cerebrovascular disease. fatal and non-fatal in the treated group compared to the placebo. A recent study carried out by Campos Nonato I et al [19] in Mexico analyzed antihypertensive treatment according to the incidence of cardiovascular complications in 31 randomized clinical studies (50.6% under 65 years of age and 49.3% aged 65 years or older). treatment in terms of the benefit in reducing the incidence of various cardiovascular complications, which occurred in young adults as well as in older adults. More recently, a study carried out by Ruiz Hinojosa J et al [20], recommends that In people over 60 years of age, the objectives of HTN

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treatment should be aimed at maintaining systolic blood pressure levels up to 150 mm Hg and antihypertensive treatment should be tailored to this group of patients, taking into account the comorbidities that may occur. many times they have associates. This same study considers that the most effective antihypertensives for the prevention of cardiovascular complications in the elderly are diuretics, angiotensin-converting enzyme inhibitors (ACE inhibitors) and angiotensin II receptor blockers (ARBs). Rivera Ledesma E et al [21], in a study they carried out with elderly people who suffered from systolic hypertension and in whom they used chlorthalidone as antihypertensive treatment, obtained a reduction in general cardiovascular morbidity by 32%. The literature consulted suggests that it is necessary to achieve greater efforts on the part of health personnel, family members and the elderly themselves in order to optimize blood pressure control, since they are a vulnerable group and sensitive to complications due to age, for example. which requires that the selection of treatment provides the safest options taking into account the needs and particularities of the patient.[22]

The elderly are more likely to suffer adverse reactions to medications due to polypharmacy due to their comorbidities including HTN, however, It is reported that young patients tolerate first-line antihypertensive medications better, including diuretics, ACEIs, ARBs, calcium channel blockers, and beta-blockers. [23]

The authors declare that the prevention of HTN is the most important, universal and least expensive measure, for which it is necessary to develop health education and promotion actions aimed at modifying the risk factors of this disease, such as a sedentary lifestyle, obesity, inadequate levels of blood lipids, diets high in salt, smoking and alcoholism.

CONCLUSIONS

The hypertensive older adults belonging to Medical Office 12 of the Pedro Borras Polyclinic in Pinar del Río, the majority are between 60 and 69 years of age, have white skin color, are prehypertensive, and grade I hypertensive and suffer from systolic arterial hypertension. , those who were controlled prevailing. The most commonly used medications to control hypertension are diuretics, angiotensin-converting enzyme inhibitors, and calcium channel blockers.

DECLARATION OF CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

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