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Review Article

Sociodemographic and therapeutic factors associated with low adherence to antihypertensive treatment in older adults. Sancti Spiritus. 2022-2023

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Abstract

Introduction: arterial hypertension is a chronic pathology with a high prevalence, the complications of which can be avoided if optimal blood pressure levels are maintained; adherence to treatment is a fundamental pillar for maintaining the health status of hypertensive patients.

Objective: to characterize the sociodemographic and therapeutic factors associated with low adherence to antihypertensive treatment in elderly patients hospitalized in the geriatric ward of the Provincial General Hospital "Camilo Cienfuegos" of Sancti Spíritus in the period 2022-2023

Methods: an observational, descriptive, prospective and cross-sectional study was carried out. The population consisted of 1003 elderly patients with a previous diagnosis of arterial hypertension and the sample was 775, according to research criteria. The variables age, sex, marital status, educational level, comorbidities, time since the disease was diagnosed and adherence to treatment were assumed. The data were obtained through participant observation, documentary review of medical records and data collection model. The Morisky-Green-Levine test was used to determine treatment adherence.

Results: The predominant age group was hypertensive elderly people between 71 and 75 years old, female sex, widowed marital status and high school as the highest educational level. The most commonly identified comorbidity was ischemic heart disease, the time since diagnosis of arterial hypertension was greater than 5 years and patients who did not comply with adherence to antihypertensive treatment led the study sample.

Conclusions: Lack of adherence to antihypertensive treatment is a frequent and multifactorial problem, which has seen few advances in recent decades.

Key Words: sociodemographic factors; treatment; arterial hypertension; therapeutic adherence

Introduction

Hypertension (HBP) defined for adults as elevation of systolic blood pressure (SBP) to 140 mm Hg or more, diastolic blood pressure (DBP) to 90 mm Hg or more, or both values inclusive, is a serious medical condition that significantly increases the risks of cardiovascular disease (CVD) and others. [1]

In the adult population, HBP represents a growing public health problem, because life expectancy is increasing in developed countries and the trend is similar in developing countries, constituting the population group with the greatest growth. [2]

HBP is one of the conditions that most affects health in adults, as of all conditions, it requires treatment throughout the affected person's life; however, in different investigations, discouraging results were shown on adherence to pharmacological and non-pharmacological medical treatments. [3]

Adherence to therapeutic compliance is rooted in the Follow the Instructions. medical, related Principally to the taking of medication, estimated schedules, diets, perception of the disease and changes in the lifestyle [4].

Non-adherence to treatment leads to a lack of adequate control of the disease giving rise to complications, which causes an increase in the number of visits to the doctor, a greater number of hospitalizations, requiring complementary exams, causing additional expenses to the public health system and affecting the quality and expectation of life of the patients [4].

At the world level the estimates that approximately 43 to 65.5% of hypertensive patients do not adhere to the prescribed regimens. [5]

Lack of adherence to antihypertensive treatment affects Approximately 75% of patients in the United States, who do not achieve optimal blood pressure control. It is suggested that around 50% of hypertensive patients are unable to comply with a hygienic-sanitary regimen, nor to carry out correctly the Treatment with drugs, especially when this extends for more than 1 year [10]. The compliance with the therapy is generally situated in environments from 50 to 70%. [6]

In Cuba a 37.4% lack of adherence to antihypertensive treatment is reported [12]. According to investigations 40% of patients do not comply with pharmacological treatments and between 60 and 90% do not do so with non-pharmacological treatments related to dietary measures, as well as the practice of exercises. [7]

Holy Spirit for him part shows a prevalence of around 27% of Sancti Spiritus sufferers who suffer from HTA, which corresponds to the national average. The main cause of the disease's lack of control is the low or null adherence to the drugs. Noncompliance with antihypertensive treatment is currently experiencing an increasing trend, which is why it has become a therapeutic challenge [7,8].

A high incidence of patients with low antihypertensive treatment adherence has been detected in the geriatric ward of the "Camilo Cienfuegos" Provincial General Hospital in Sancti Spíritus, which has caused high morbidity from this cause without a diagnosis. Precise demographic and therapeutic factors associated with this situation.

Considering these antecedents, we decided to analyze the behavior of sociodemographic and therapeutic factors associated with the downgrade antihypertensive treatment adherence in elderly patients hospitalized in the geriatric ward of the "Camilo Cienfuegos" Provincial General Hospital in Sancti Spíritus in the period 2022-2023.

Methods

A study was conducted observacional, descriptivo, prospectivo y transversal en la Sala de Geriatría del Hospital General Provincial "Camilo Cienfuegos" de Sancti Spíritus en el period 2022-2023 with him objective of characterizing el behavior of factors sociodemographics y terapéuticos associated with the downgrade treatment adherence antihypertensive en patients old people hospitalized en geriatric room of the institution.

La población objeto de estudio It was constituted by 1003 patients old people Hypertensive admitted en el Geriatrics Service during el period of study. Para la selección de los pacientes se tomaron en account Criterios de inclusion y exclusion: Criterios de inclusion Patients mayores de 60 años , with diagnosis previo de hypertensión arterial y que dieron su consent informed to participate en the studio Exclusion criteria.

Paciente con diagnostic de enfermedad mental invalidante, de trastorno psiquiátrico o que se encuentre en treatment psychological Previous. Patients whose limitation cognitive Impida la Comprehension de las preguntas directed Pacientes que no desearon participate en la investigation y no dieron su consent informed.

Exit criteria

Abandono de la investigation por voluntad own

The sampling used It was not probabilistic. intentional aplicaando la siguiente formula para determinar el Same size.

$$n = \frac{N * Z_{\alpha}^{2} p * q}{d^{2} * (N-1) + Z_{\alpha}^{2} * p * q}$$

Note:

- N = Total population
- $Z\alpha^{2} = 1{,}96^{2}$ (la seguridad es del 95 %)
- p = proportion expected (in this (case 5 % = 0.05)
- q = 1 – p (en this case 1-0,05 = 0,95)
- d = precision (in this case We want a 3%).

The sample remained made up of 775 patients.

A data collection model was developed from hospital medical records, charge sheets and patient interviews; the Morisky-Green-Levine test was applied to determine adherence to antihypertensive treatment; and finally a database was created on a PC Core i3, using an information management system and processed by the statistical package EPINFO version 6.0, EPIDAT and SPSS, version 10.0 for Windows, for use in the analysis program. Descriptive statistics were used for the distribution of absolute and relative frequencies and the results were included in tables.

The ethical aspects contemplated in this study followed the ethical principles declared by the International Medical Association, in Helsinki, Finland.

Results

According to groups of age and sex prevailed in the female sex (397 for 51.2% of the total) and those under 80, for which there was an accumulated frequency of 621 patients that represented 80.1% of the population. Las Mujeres en edades entre los 71 y 75 años fueron los afectados. **(Table 1)**

Variables	Scale	Sex				Total	
		Male		Female			
		No.	%	No.	%	No.	%
Age	60-65	52	6,7	57	7,3	109	14,1
	66-70	83	10,7	89	11,5	172	22,2
	71-75	87	11,2	90	11,6	177	22,8
	76-80	81	10,5	82	10,6	163	21
	80 and over	75	9,7	79	10,2	154	19,9
	Total	*378*	*48,8*	*397*	*51.2*	*775*	*100*

Table 1: Distribution of patient's old people Hypertensive admitted in the Geriatric Room according to age and sex Hospital General Provincial "Camilo Cienfuegos" Sancti Spíritus. 2021-2023

Source: Stories Clinics

The behavior according to estado civil mostró que los viudos prevailed with 186 patients (el 24% of the total) followed by los convivientes with el 22.3%. (Table 2)

Variables	Civil status	Total	
Civil Status	Single	97	12,5
	Married	158	20,4
	Widow	186	24
	Divorced	161	20,8
	Cohabitant	173	22,3
	Total	775	100

Table 2: Distribution of patient's old people Hypertensive according to marital status

Source: Stories Clinics

The level of education prevalecício el pre universitario (198 para 25,6 % del total) y el nivel medio, para los cuales hubo una frecuencia acumulada de 521 pacientes que represento el 67,2 % de la población. (Table 3)

Variables	Education	Total	
		No.	%
School level	Primary	101	13
	Secondary school	157	20,3
	Pre-university	198	25,6
	Middle Technician	166	21,4
	University	153	19,7
	Total	775	100

Table 3: Distribution of patient's old people Hypertensive according to school level

Source: Stories Clinics

La distribución de las enfermedades associates en these pacientes, mostró que la cardiopatía ischemic It was the most frequent with 462 pacientes (el 59,6 del total); Followed by insufficiency cardiac y la enfermedad renal crónica (40,1 % y 38,8 % respectively). (Table 4)

Variables	Disease	Total	
		No.	%
Comorbidities	Cardiopathy Ischemic	462	59,6
	Insufficiency Cardiac	311	40,1

Chronic kidney disease	301	38,8
EPOC	258	33,3
Diabetes Mellitus	267	34,5

Table 4: Distribution of patient's old people Hypertensive according to comorbidities

Source: Stories Clinics

According to el time of treatment of hypertension predominó los enfermos de más de 5 años con el 87% del total de la muestra. (Table 5)

Variables	Years	Total	
		No.	%
Treatment time	Less than a year	27	3,5
	Between 1 and 5 years	74	9,5
	More than 5 years	674	87
	Total	775	100

Table 5: Distribution of patient's old people Hypertensive according to Treatment time

Source: Stories Clinics

The adhesion therapeutic showed a predominance of non -compliant patients with 411 patients (53% of the total sample). (Table 6)

Variables	Morisky-Green-Levine Test	Total	
		No.	%
Treatment adherence	Complidor	364	47
	Non- compliant	411	53
	Total	775	100

Table 6: Distribution of patient's old people Hypertensive according to treatment adherence

Source: Test de Morisky-Green-Levine

Discussion

Herrera et al., [10] showed in their research that the age groups with more Hypertensive patients were those between 60 and older with 64.71 % of the total cases; it coincides with this Study.

Soler et al., [11] found results similar to those of the present study with a predominance of the age groups between 65 and 79 years and 50 and 64 years (38.1% and 31.9%, respectively); in as for sex, females predominate (64.8%). Romero et al., [12] showed in there I study that male sex has a higher prevalence than females.

Rodríguez et al., [13] reported a greater percentage of Hypertensive patients in those under 60 years of age, which does not agree with our results. Maceo et al., [14] found that the most affected age group was 50 to 59 years, represented by 31 patients for 42.46% of the total. In terms of sex, the female group predominated with 46 patients (63.01%).

The authors consider that the population group aged 60 years or older is characterized by a progressive increase and a prevalence of high blood pressure. Therefore, in this group, blood pressure (BP) assessment is very important, widely applicable and necessary for adequate control of hypertension. This predominance of patients with hypertension can be linked to the fact that, in women, once they reach the postmenopausal stage, there is a decrease in estrogen, which generates a powerful peripheral vasodilator effect.

Mejia et al., [15] found a predominance of the unmarried marital status where they include singles, widows and divorced with 56.21% compared to married people with 43.78%. This is consistent with this study since the two categories predominant in our study fell within the unmarried. Diaz et al., [16] showed that the level of death in their school was secondary school basic, pre-university, technical middle; this coincides with our results.

Calvis et al., [17] found in their study that the highest percentage (45.8%) was found by patients with finished secondary school followed by pre-university with 22%. The other patients were only at the level of primary education and not finished pre-university, there is no university, coinciding in part with this research.

Garaundo, [18] in his thesis about the association between the level of knowledge of arterial hypertension and adherence to pharmacological treatment, showed that 21.3% of hypertensive patients did not have an academic education (illiterate and incomplete primary education) and 78.7% had an academic training.

Ochoa, [19] in his article "Characterization of patients with uncontrolled arterial hypertension in relation to adherence to treatment" stated that in terms of the level of education, the predominant education was pre-university or technical school with 39.5% of cases.

The authors believe that evidently, the results depend on the social context where the study is carried out and the average population. Consider that the education level of individuals is important since the older he gets the better the patients will comply with medical observations and indications with respect to the prevention of arterial hypertension, influencing favorably the results of the medical work. However, he considers that

schooling is not a determining factor in the appearance of this disease, but it is possible to point out the importance of a certain cultural level to assimilate knowledge about the disease and healthier ways to live with it.

Estrada et al., [20] in their study showed that ischemic cardiopathy was the most frequent comorbidity associated with both sexes with 89 patients (58.54%) and a lesser amount of chronic renal disease with 12.5%.

Gómez et al., [21] and Maldonado et al., [22] showed that diabetes mellitus was the most frequent complication with an incidence of 41%.

Shunchao et al., [23] showed that type 2 diabetes mellitus was more frequent as comorbidities in 72.9%; ischemic heart disease in 54.9% and cerebrovascular disease in 36.1%.

According to the authors' opinion, comorbidity implies greater complexity in the diagnosis plan, the treatment, the creation of care protocols and in the research. It is necessary to identify the comorbidity of the hypertensive patient and his order in etiopathogenic, physiopathological and therapeutic mechanisms.

Perez, [24] He emphasized that in his study that universe It was mostly composed of patients who received the positive diagnosis of Arterial Hypertension since approximately 15 to 19 years ago (32.5%), although they may have suffered it since much earlier because this entity is many Sometimes underdiagnosed.

Vinaccia et al., [25], concluded that 75 % of patients included in their study had been between 12 to 24 months after the positive diagnosis for the disease.

García, [26] found in their research in the municipality of Guane, province of Pinar del Río, that the predominant group was the one made up of people who have been diagnosed for less than 5 years. This study does not agree.

At the discretion of the authors, the predominant group in this variable included the majority of patients diagnosed with the disease for years who, having experience in its management, should be more familiar with it, its signs and symptoms, treatment and especially, the importance of the correct application of pharmacological and non-pharmacological measures that this entity requires for correct control and handling.

Pomares et al., [27] found that partial adherence to treatment prevailed in their study universe (66.7 %); Cabrera, 80 reported that 36.47 % of patients It was totally adherent to the treatment, partially coinciding with our research.

Jiménez et al., [28] showed that 58.8 % of hypertensive patients do not adhere to the prescribed therapy according to the results of the Morisky-Green-Levine test; like Ortiz et al., [9] in their study they demonstrated a non-adherence to the therapy in 52% of hypertensive patients, coinciding with this Study.

Ash et al., [29] in their study showed that the lack of adherence to the pharmacological treatment or non-compliance with the therapy, despite not having been a fact quantitatively significant is still important; the identified cause was forgetfulness in taking the medications. This situation is worse. Frequent in elderly patients advanced when the medication has to be taken several times a day or when they have more than one medication that contains different Administration regimens.

According to the authors, the results obtained show what is happening: A substantial improvement is needed in access, follow-up and control of hypertensive patients, given the difficulties encountered, where individual and social behaviors play an important role in the development of these gaps.

It should be expanded. the panorama and recognize that therapeutic adherence remains an obstacle that does not allow improving the health and quality of life of people. According to data from the World Health Organization, in developed countries the rates of adherence to treatments for chronic diseases are located around 50%, data that allows to rate adherence as "a problem" worldwide of great magnitude." [30]

Conclusions

The patients predominated in the age group between 71-75 years, female sex, marital status widowed and as the level of education the secondary education was the maximum level. The most commonly identified comorbidity was cardiopathy. ischemic, the The time of diagnosis of arterial hypertension was 5 years and the patients did not adhere to the antihypertensive treatment led the study sample. It is concluded that lack of adherence to Antihypertensive treatment is a frequent and multifactorial problem, which one has few advances in the latest Decades.

Conflicts of Interest

The authors They declare that they do not exist. Conflicts of interest.

Author's Declaration

I. Yuniel Abreu Hernández (Conceptualización. Curación de datos. Análisis formal. Investigación, Metodología, Administración del proyecto, Recursos, Software. Supervisión, Redacción).
II. Daimara Barrera León (Curación de datos. Análisis formal. Investigación. Metodología. Recursos, Visualización).
III. Yoanka Cañizarez Gorrin (Curación de datos. Análisis formal. Investigación. Metodología. Visualización).

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