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PARTPEN FUN	ICTIONALITY IN THE ELDERLY WITH HEART EASE IN A MUNICIPAL PROGRAM OF BRAZILIAN LITH.	KEY WORDS: High blood pressure, Elderly, functionality, quality of life.			
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INTRODUCTION: the functionality in the elderly population is influenced by the gradual reduction of the capacity of the various					

INTRODUCTION: the functionality in the elderly population is influenced by the gradual reduction of the capacity of the various organ systems, interfering with an individual's lifestyle. One of the most frequently affected is the cardiovascular system that represents a public health problem in Brazil and leads to approximately 30% of deaths in the country, being the most prevalent hypertension. **Objective:** to evaluate the functional capacity of the elderly hypertensive HiperDia group in the municipality of Lagarto/SE. Methods: cross-sectional study of qualitative character, where he was evaluated a sample of 25 individuals, belonging to the HiperDia group of basic health units Maria do Carmo and David Marco of the municipality of Lagarto/SE. Results: the values of the functional independence measure (FIM) showed an average of 119, 36 ± 21.31 , where classifies this sample with complete independence in activities of daily living. The Nottingham Health profile (NHP) 12.5 \pm 6.5 points, whereas a good state of health. In the analysis of the capacity of effort was used the 6-minute walk test (6MWT) getting an average of 365.91 meters \pm 55.16 evidencing a good capacity of effort. The evaluation of the quality of life for the Bullpit questionnaire and Fletcher demonstrated 56.2 \pm 13.7 points. **CONCLUSION:** it is concluded that in the sample investigated, this medical condition did not influence negatively in the elderly hypertensive functionality to make your daily life activities, by the active lifestyle of the population and adherence to health program.

INTRODUCTION

BSTRACT

The functionality can be understood as the ability of the person to carry out certain activities or functions, using various skills for the realization of social interactions, recreational activities and other behaviors required in your day-to-day^{1,2}. The concept of functional capacity includes the ability of the individual to maintain competence, physical and mental skills for independent living and autônomo^{2,3}. Since the aging process occurs a decline in functional skills of the individual resulting from the changes of senescence, generating dependency in performing everyday activities and compromising the quality of life. Physiologically, the elderly cardiovascular performance is reduced, favouring the emergence of diseases, of multifactorial origin and of chronic damage^{4,5,6}.

Aging is a unique process and inexorable characterized by the gradual reduction of the capacity of the various organ systems to carry out effectively its functions, associated with the lifestyle of the individual ⁷. Many systemic changes arising from the aging

process, affecting the cardiovascular, nervous, musculoskeletal, renal, vestibular and sensory-motor. Among the changes in the cardiovascular system are, decreased elasticity of the blood vessels and increased peripheral vascular resistance which elevate systolic ^{8,27,28}. Yet the decrease occurs in cardiac output, stroke volume, the use of oxygen by the tissues. At that stage, can still be considered the increase in the arterio-venous difference for oxygen, the concentration of lactic acid and cardiac output ⁹, due to these changes can generate deficits in physical, mental and perceptive ability of elderly individuals, reducing your quality of life. In this way, a large part of the activities of daily life (DLA) and social life are compromised by the inability to perform these activities independently, leading to a poorer functional capacity 10. For these and other changes, the elderly will always be an individual susceptible to cardiovascular diseases and hypertension ¹¹.

Cardiovascular diseases are defined by the pathologies that affect the organs heart and vascular system components, multiple

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etiologies and often if featuring to be chronic damage. The changes of aging make the person more prone to chronic diseases like heart diseases, this being the main involvement in this population ¹².

Hypertension (HBP) is regarded by the presence of elevated BP levels and sustained blood pressure, being considered one of the major risk factors for cardiovascular complications. Because it is a multifactorial disease and asymptomatic diagnosis sometimes ends up being late, contributing to the development of heart failure, cerebrovascular accident (CVA), renal and myocardial infarction ¹³. For diagnosis of HAS, the Brazilian Consensus Hypertension classifies blood pressure as normal if systolic BP diastolic BP and < 130mmHg < 85 mmHg; mild hypertension if systolic BP 90 and 99 mmHg; moderate hypertension if systolic 160 PA 179 mmHg and diastolic BP and 100 and 109 mmHg; severe hypertension if systolic BP above 180 mmHg and diastolic BP over 110 mmHg; isolated systolic hypertension and if it is equal to or greater than 140 mmHg with no increase in diastolic pressure ¹⁴.

The cardiovascular system diseases represent a serious public health problem in Brazil and leads to approximately 30% of deaths in the country. The who projection is that this group of diseases is the leading cause of death in all developing countries, especially in the third age, seen that the index added along with the advancement of age⁴.

The study aims to evaluate the functionality in the elderly with heart disease in the municipality of Lagarto/Sergipe/Brazil, as well as to characterize the profile of elderly population belonging to the Brazilian health program, HiperDia.

METHODS

This is an cross-sectional study of quantitative approach. We evaluated 25 individuals at random and consecutive, including 92% being female and 8% male. This evaluation consisted of a brief history of the clinical history, in the measurement of vital signs and application of questionnaires conducted by the therapist, where the individual only responded orally and the therapist scored in the evaluation form, launched hand quality of life questionnaire of Bulpitt and Fletcher, Nottigham health profile (NHP) and Functional independence measurement (FIM).

The inclusion criteria were to be a person aged 60 years or more, present diagnosis of Hypertension, volunteer in the research approach, be program participant, municipal health HiperDia in the municipality of Lagarto, northeastern Brazil, and make regular use of antihypertensive medications. Exclusion criteria limit the participation of elderly individuals with unstable vital signs and motor and cognitive limitations that would prevent the application of the tests of the study.

Was applied, first, the questionnaire of Nottingham health profile (NHP) created by Hunt et al., in 1981, evaluates the quality of life of the elderly and patients with chronic diseases. The NHP is a series of items for which you must answer Yes or no and are grouped together to form six dimensions (energy, pain, physical mobility, emotional reactions, sleep and social isolation). Easy to apply, the patient replies without complication and even without aid, and can be applied in other environments beyond the15 clinical. After implementation of the NHP, was applied the guestionnaire of quality of life for hypertensive patients developed by Bulpit and Fletcher (1990), auto apply, evaluating aspects of physical wellbeing, psychological perception of the patient about the effect of antihypertensive treatment in your lifestyle ¹⁶. Is objective, clear, simple and meets the main aspects involved in hypertension. The questions are designed to closed answers Yes or no. When entered, such responses provide a score. Admitted-if note 0 for no and 1 for yes¹⁷.

The functional independence measure (FIM) was used as a collection tool to verify the performance of the individual. The person is evaluated from the ability to perform a set of 18 daily

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tasks, related to self-care, toilet control, transfers, transportation, communication and social cognition (varies between 18 and 126 points to sum of all areas). The higher the score more independent is the individual. Each item can be classified into seven levels of functionality ranging from dependence complete independence ^{18.19}. In the end, the sample held the 6-minute walk test (6MWT) and were checked his vital signs²⁰.

All survey respondents were told and agreed to cooperate voluntarily in the study signing an informed consent form (ICF). This research was authorized by the Committee and ethics in research by the CAAE number 44529915.2.0000.5546.

The tabulation of the data was performed from the Microsoft Excel 2013 while the statistical analysis was performed by means of the program GraphPad Prism 6.0 through formulas for mean and standard deviation, being carried out normality test by shapiro wilk test, mann-whitney test for comparison of the averages and Spearman correlation due sample parametric considering a significance level of 95%.

RESULTS

In the period of realization of the study 25 patients were evaluated, the table 1 presents the General characterization of the sample studied, this can be noted that the vast majority of the sample is made up of women, being 92% of the total sample. The percentage of smokers in the sample showed 44%, and the question it asked to use current and past use of tobacco among this value none of the individuals currently smoking. The involvement of dyspnoea, episodes of CVA and other diseases presented comprised, respectively, 8%, 4% and 44%, being the most prominent Diseases Musculoskeletal dysfunction and diabetes type II.

Table 1- General characterization of the sample studied.				
Features	Variables			
Age (years), average \pm SD	67,5 ± 6,3			
Female gender, n (%)	23 (92%)			
Smokers, n (%)	11 (44%)			
Presented dyspnea, n(%)	2 (8%)			
Suffered a CVA* at some point of life, n(%)	1(4%)			
Other diseases, n(%)	11(44%)			

* Cerebrovascular accident

The table 2 presents the results obtained in the range of the NHP and the functional independence measure (FIM).

Table 2 - Results of the NHP, FIM, Bullpit and Fletcher and 6MWT.

	NHP	FIM	Bullpit e Fletcher	M6WT
	(total value)	(total value)	(total value)	(meters)
Average	12,2	88,92	56,18	365,9
Standard deviation	± 6,5	± 1,8	13,71	± 55,2

The table 3 refers to the values of heart rate (HR), oxygen saturation (SpO2), diastolic blood pressure (DBP) and systolic (SBP) before and after the test.

Table 3-mean values and standard deviation of the variables of heart rate (HR), oxygen saturation (SpO2), diastolic blood pressure (DBP) and systolic (SBP) before and after the 6minute walk test.

	Before the 6MWT	After the 6MWT	Value of p*
HR (beats per minute)	77,7 ± 10,8	81,72 ± 26,8	0,37
SpO2 (%)	96 ± 4,9	97,3 ±1,4	0,55
SBP (mmHg)	139,9 ± 24	147,3 ± 28,2	0,34
DPB (mmHg)	80,4 ± 14	80 ± 15,3	0,97

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Analyzing the correlation of functionality of guality of life, the NHP along with 6MWT has demonstrated moderate positive correlation with value of 0.43 and p = 0.04, being the only correlation that showed significance. The correlation between FIM and 6MWT scored 0.32 and p = 0.11, being a positive character and moderate correlation. The questionnaires of Bulpit and Flettcher with FIM showed weak positive correlation with score of 0.32 and p = 0.09. The correlation between 6MWT and Bulpit and Flettcher found a moderate negative correlation, punctuating with-0.15 and p = 0.5. In this way, only the NHP and 6MWT instruments showed good in this group application significance, albeit with moderate correlation.

DISCUSSION

The functional incapacity affects about 25% of older people identify and evaluate these patients is of utmost importance. With ageing the individual changes in all body systems, these changes leave us more susceptible to develop diseases such as hypertension that has systemic feature and must also be evaluated systemic form^{22.23}.

Most research participants were female, which portrays the reality of health services in this regard suggests that develop actions that seek membership of male, encouraging health care.

In tangential to the NHP is the relevance not assess only the level of functionality, but also the psychological and social state of the patient, this type of evaluation is of the utmost importance, because the social participation, guality of sleep are essential in this phase of life to prevent further complications and avoid fatigue. Originally this scale assessed patients with chronic diseases in recent years has been used to measure the guality of life in the elderly especially in patients with hemiplegia and Parkinson's disease patients 21 and little explored in the implementation of elderly hypertensive patients.

The individuals evaluated had a result of 12.5 ± 6.5 , whereas maximum score of 38 points and represents the worst health status, because the higher the score found the lower the quality of life. Studies that evaluated the PSN content in a sample of active seniors and found, also, good score, considering a good state of health, however, they scored this instrument contains questions targeted only to routine activities that affect the general health of the individual, in this way, positive values in this population may not indicate a good health profile^{21,24,25}.

The guestionnaire of guality of life for hypertensive patients developed by Bulpit and Fletcher aims to measure the impact of hypertension¹³, the average obtained from the scored questions was 56.2 \pm 13.7. The questionnaire also brings descriptive issues that relate to interference of hypertension on sexual life, leisure and occupation; in what relates to sexual life the vast majority reported that the interest in sexual relations had declined; on the occupation were mostly retirees, and when asked about your inability to perform regular domestic activities most reported there was no influence of the disease. About your leisure activities great part not reported in any.

The cognitive evaluation is usually neglected, but has important role in the influence of the quality of life of the individual, the MIF evaluates not only the motor aspect, but also the emphasis on the cognitive, the elderly evaluated obtiverão a result equivalent to 18.92 ± 1.8 what represents a complete dependence requiring a total assistance.

The 6-minute walk test represents a simple measure of easy application and simulating the activity more routinely held by the people. The sample of this study presented a distance traveled of 365,9 ± 55,2 meters without any significant alteration of FC, SpO2, DBP and SBP after the test. A study estimates that 400 meters represent values less than unhealthy individuals. Compared to another study the average distance traveled for the elderly would be of 457,26 meters, ^{26,29,30}. In the case of this sample aging associated with hypertension can be a preponderant factor in the

decreased functional capacity.

Therefore, the elderly health program can maintain a certain regularity despite the functional deficit, however, that individual that have certain tolerance sealable can the greatest damage to functional health status.

Conclusion

The study showed that despite the hypertension present with severe complications, this did not influence negatively on functionality of the studied population not being observed severe impairment of hypertension on the General State of health. Membership of the municipal assistance program the hypertensive, Hiperdia, and the active life of these people participating in this program may have collaborated with the results.

Although values of the minor in relation to the 6MWT expected, the active living is an important factor for the low functional impairment observed by correlations of functional tests, making the program with significant result in the group analyzed.

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