40 - LEVEL OF PHYSICAL ACTIVITY IN HYPERTENSE PATIENTS FROM RURAL AREA, FROM CRATO CEARÁ.

NELYSE DE ARAÚJO ALENCAR
PSF-CRATO, CEARÁ;
PROCIMH-UCB/RJ-BRASIL

INTRODUCTION

Systemic Arterial Hypertension (SAH) is more than a simple raise in blood pressure. Hypertense illness is one of the most widespread public health problems in Brazil and present the greatest and most dangerous risk factor for increasing and/or developing acute cardiovascular diseases. According to statistics, SAH can kill nearly 40% of patients running a high death rate risk because of the so called target organs attack such as brain, heart, kidneys and blood vessels with Increasing Heart Attacks (IHA), cerebral vascular accident (CVA), bad heart functioning and instantaneous death.

About 14,000,000 Brazilians are hypertense according to the seventh consensus for arterial hypertension medical attendance - 15% of them at self supporting age, which remarkable increases social costs because infirmity and work absence. (JAMA,2003). The classification used and recommended by BCA (Brazilian Cardiology Association) through its IVSAH management is described on the chart below.

ARTERIAL PRESSURE LEVEL	CLASSIFICATION
< 120 SYSTOLIC AND < 80 DIASTOLIC	Ideal
< 130 systolic and <85 diastolic	Normal
130 ~139 systolic or 86 ~89 diastolic	Normal - high
140 ~159 systolic or 90 ~99 diastolic	Hypertension stage 1
160 ~ 179 systolic or 100 ~109 diastolic	Hypertension stage 2
> 110 diastolic or > 180 systolic	Hypertension stage 3

Much emphasis has been given to changing living habits procedures (not pharmacological) for preventing and controlling high stretching levels , that must be implemented to all hypertense patients, even those who take drugs. Doing physical exercising regularly, an important component for improving life quality, has been outstanding such procedures. Surveys have evidenced less morbidity and death, due cardiovascular system illness, for patients physically drilled, with evident benefit on hypertense patients subgroup (LEWINGTON et al., 2002, VASAN,LARSON,LEIP, 2001)

It's known little about physical activity habits of people who live in third world countries. In fact, a progressive sedentarism which has extremely reached all of the world, was remarkable by the 20th century, even in more advanced countries (REGO, BERARDO, RODRIGUES, 1990).

For all of this, it has got to be more and more important to determine the level of physical activity people do. Choosing whatever physical activity measurement method is related to the numbers of patients to be analyzed , and including of different ages.

Many researches have been developed in order to make these kinds of instruments known as questionnaire or memory book authentic. The most recently and international known proposition is the International Physical Activity Questionnaire (IPAQ), nationally known as QIAF (questionario internacional de atividade fisica), that classifies the patients in, sedentary, deficiently active A and B, active and very active (MATSUDO et al,2001).

The present work was realized at the municipality of Crato - CE, which is located in the south region of Ceará, has a hot and humid climate with diverse vegetation predominating mountain range with de3nse underbush, valleys, and sand banks.

According to the estimate, Crato has a population of 113.497

The family health program (FHP) in brazil was created by the federal government in 1993. In 1994 the first teams were implanted as a proposition of organizing the primary attention of health in the scope of the SUS, with the family as the nucleus of attention. Within the areas of performance of the FHP is the program of attention to the health of the hypertense. The implantation of the FHP in Crato took place in 1998 and today has 24 teams with 9 being in the rural zone and 15 in the urban zone.

In light of these facts the objective of this study was to evaluate the level of the physical activity of the hypertense people of the community of the rural zone of the municipality of Crato and verify if the habit of the practice of physical activity has influence on the control of the pressure level of the same. This is a descriptive and epidemic like transverse study. It was performed on a hypertense population living in São Bento village, in the rural area of Crato town. There are about 100 hypertense people in the chosen community whit correspond to37% of the total hypertense ones in the whole area covered by the above-mentioned FHP.

The sample was composed of 30 hypertense people of both sex, between 42 to 84 years old, picked out by lot.

Since this is the only rural countryside team which has monthly data of arterial pressure evaluation of patients registered in prompt book and specific accompaniment book, it fit the selection criterion. In order to participate in the survey the patients were supposed to fit the following criteria: to be hypertense , of either both sex, between 42 to 84 years old countious and oriented so that they could answer interview questions, registered in a cadaster and regularly watched by the FAP team in the above mentioned rural of Crato town.

The questionnaire used to determine the level of physical activity in hypertense patients was international physical activity questionnaire (IPAQ) shortened version, adapted for people living in rural country side, applied and explained to the interviewed ones by researcher, at the family health base, having the last week as a reference, there were questions about how often and how long physical activities were, age, sex, and blood pressure.

Descriptive and deductive analysis was adopted to this study. The meaningful level got 5% (p-o.o5). The collected data were arranged according to the research goals in tables. The data arrangement and analysis were performed on the EPI-info 2002 (who, 1996) program.

RESULTS AND DISCUSSIONS

TABLE 1- Level Classification of the Physical Activity in a Sample of 30 hypertense people from the country area (Vila São Bento) in the city of Crato-Ce. Source: research data. EPI-info 2002.

Classification	Frequency	Percentage
Active	23	76.70%
Insufficient Active A	2	6.70%
Insufficient Active B	5	16.70%
Very active	0	0.00%
Sedentary	0	0.00%
Total	30	100.00%

The results of the researches the level of the physical allowed to verify that 76.70% of the evaluated hypertense were classified as actives, 6.70% as insufficient Active A and 16.70% as insufficient Active B. Secondary hypertense were not found or very active, as classified by IPAQ (MATSUDO *et al*., 2001). Possibly the results are those because they live in a rural area and they keep habits of physical activities, either domestic or in the field. Similar results were not found in the countryside area.

TABLE 2- Level Correlation of the Physical activity with the BP (Blood Pressure) in the sample of 30 hypertense from the country area, (Vila São Bento), in the city of Crato-Ce. Source: research data. EPI-info 2002.

LEVEL OF PHYSICAL ACTIVITY IN HYPERTENSE PATIENTS

BP	Active	Insufficient Active A	Insufficient Active B	total	BP	Active	Insufficient Active B	total
Controlled BP	22	2	4	28	Non-Controlled BP	1	1	2
Row %	78.6%	7.1%	14.3%	100%	Row %	50%	50%	100%
Col %	100%	100%	100%	100%	Cow %	100%	100%	100%

They were found 23 (76.70%) hypertense classified as active. Among them, 32 (95.6%) showed controlled BP (blood pressure till 159/99). These results are like the ones found in epidemic and clinical researches which has demonstrated the beneficial effect of physical activity habits on the blood pressure in people of all ages (SBH, SBC, SBN 2002). The high level of diary physical activity is associated to the less levels of the blood pressure in rest, 01 (4,3%) showed modified BP, this fact may happen for the reason of the person is in psychological stress period (WAREMAN, 2000). It is known that the blood pressure is characterized for the multifaturiety in its etiology, the care must have, in addition of the medicinal therapy, change of the life habits as eating less fat, among others and control the psychological stress. (SAIEN, 2005; FUCHS &GUS, 2004).

It was found the presence of 01 insufficient hypertense Active B, with no controlled BP, 02 insufficient hypertense active and 04 insufficient active B, that is spite of they don't have physical activity regularly, they are with the BP controlled, for the regular practice of the others ways to take care of the blood pressure, which are established in three resource: no-pharmacological, pharmacological and the adhesion of the patient of the treatment. (MARANHÃO & RAMIRIES, 1988).

CONCLUSION

The data collected for this research for showed that the percentage of the hypersensite people, who live in the searched country area, and practice physical activity regularly, was very important (76.70%) and the physical activity had an important work in the control of the blood pressure levels in the hypertense people evaluated; 95,6% of them had their BP controlled, showing with that the relation between the practice of physical activity and the less blood pressure. Infer from that, that many researches, to people who live in the country area, to determine the levels of the physical activity and its impacts in the pressure levels, still needs to be done, because the data in the literature are scarce, which could give more theoretical foundation to the future researches.

REFERENCE

BLACK, H.R., ELLIOTT, W.J. & NEATON, J.D. (2001). *Baseline characteristics and elderly blood pressure control in the CONVINCE trial.* Hypertension. 37:12-18.

CHOBANIAN, A.V.; BAKRIS, G.L.; BLACK, H.R.; CUSHMAN, W.C.; GREEN, L.A.; IZZO, J.L.; JONES, D.W.; MATERSON, B.J.; OPARIL, S.; WRIGHT, J.T.; ROCCELLA, E.J., 2003, *JAMA,* May 21. Vol 289.

FUCHS, F.D.; GUS, M. Hipertensão arterial: novos paradigmas para diagnóstico e tratamento. *Rev. HCPA & Fac. Med. Univ. Fed*. Rio Gd. do Sul; 24(1):18-24, abr. 2004.

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATISTICA, 2005.

IV Diretrizes Brasileiras de Hipertensão Arterial - SBH/SBC/SBN - 2002.

Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure, National High Blood Pressure Education Program Coordinating ommittee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (2003). *JAMA*, 19: 2.560-2.572.

LEWINGTON, S., CLARKE, R., QIZILBASH, N., PETO, R. & COLLINS, R. (2002). *Age-specific relevance of usual blood pressure to vascular mortality.* Lancet. *360:1903-1913. M.*

MARANHÃO, M.F. de C.; RAMIRES, J.A. F. Aspectos atuais do tratamento da hipertensão arterial. *Arq. Bras. Cardiol.*, v. 51, p. 99-105, 1988.

MATSUDO V; ANDRADE E; MATSUDO S; ANDRADE D; ARAÚJO T; OLIVEIRA L; BRAGGION G; RASO V. *Moderate, vigorous, and walking messages adopting in a physical activity intervention program as related to chronological age.* Med Sci Sports Exer 33 (5 Suppl): S50, 2001.

REGO A; BERARDO F; RODRIGUES S. Fatores de risco para doenças crônico-não transmissíveis: inquérito domiciliar no município de São Paulo, SP (Brasil). Metodologia e resultados preliminares. *Revista Brasileira de Saúde Pública.* 1990; 24:277-28.

SAIEH, C.A. Hipertensión arterial: tratamiento no farmacológico: estilos de vida *saludables. Rev. Méd. Clín. Condes*;16(2):77-81, abr. 2005.

WHO, *Methodological unit, epidemiologist and statistics*: manual of the user for determination of the size of the sample, 1986.

WAREMAN N.J.; WONG M.Y.; HENNINS S; MITCHELL J; RENNIE K; CRUICKSHANK K; et al. Quantifying the association between habitual energy expenditure and blood pressure. *Int J Epidemiol.* 2000; 29: 655-60.

VASAN, R.S.; LARSON, M.G.; LEIP, E.P., 2001. *Assessment of frequency of progression to hypertension in non hypertensive participants in The Framingham Heart Study*. Cet. 358:1682-1686. F.

Nelyse de Araújo Alencar
88-3571-1435/9217-0822
e-mail- nelysemestrado@terra.com.br
Rua Dr. Mauro Malzoni, 384 Lagoa Seca
Cep: 630.40-680 Juazeiro do Norte - CE

NÍVEL DE ATIVIDADE FÍSICA EM HIPERTENSOS DA ZONA RURAL, DO MUNICÍPIO DO CRATO, CEARÁ.

RESUMO

De acordo com o Sétimo Consenso Brasileiro para o Tratamento da Hipertensão Arterial, cerca de 14 milhões de brasileiros são hipertensos. O objetivo deste estudo é avaliar o nível de atividade física em hipertensos de zona rural. A metodologia decorre de um estudo epidemiológico transversal com 30 indivíduos portadores de hipertensão do sexo masculino e feminino, entre 42 e 84 anos, submetidos ao Questionário Internacional de Atividade Física (QIAF) versão curta modificado para pessoas de zona rural. O plano de análise dos dados utilizou análise descritiva e inferencial. Foi adotado para o presente estudo o programa Epi-info 2002. O nível de significância utilizado foi de 5%. Os resultados demonstraram que 76.70% foram classificados em ativos, 6.70% em insuficientemente ativos A e 16.70% como insuficientemente ativos B, nenhum hipertenso foi classificado como sedentário. Conclui-se que a percentagem de hipertensos residentes na área rural estudada que praticam atividades físicas regularmente foi de grande significância e que a atividade física teve um importante papel no controle dos níveis pressóricos nos hipertensos avaliados.

Palavras chaves: Hipertensão, Hábitos de vida, Atividade física, zona rural.

NIVEL DE LA ACTIVIDAD FÍSICA EN HIPERTENSOS DE LA ZONA AGRÍCOLA, LA CIUDAD DEL CRATO, CEARÁ.

RESUMEN

De acuerdo con el séptimo consenso brasileño para el tratamiento de la Hipertensión arterial, cerca de 14 millones de brasileños son hipertensos. El objetivo de este estudio es evaluar el nivel de la actividad física en hipertensos de la zona agrícola. Los pasajes de la metodología de un epidemiólogo transversal con 30 individuos portadores de hipertensión del sexo masculino y femenino, entre 42 y 84 años, sometieron al cuestionario internacional de la versión corta modificada de Actividad Física (QIAF) para la gente de la zona agrícola. El plan del análisis de los datos utilizó el análisis descriptivo e inferencial. El programa fue adoptado para el actual estudio Epi-Info 2002. El nivel usado de la significación estaba en el 5%. Los resultados habían demostrado que el 76.70% habían sido clasificados en activos, el 6.70% en insuficientemente activos A y 16.70% como insuficientemente activos B, ningún hipertenso fue clasificado como sedentarios. Uno concluye que el porcentaje de hipertensos residentes en el area agrícola estudiada que practican actividades físicas con regularidad fue muy significativa y que la actividad física tenía un importante papel en el control de los niveles en la presión en los hipertensos evaluados.

Llaves de las palabras: Hipertensión, hábitos de vida, actividad física, zona agrícola.

NIVEAU D'ACTIVITÉ PHYSIQUE DANS DES HIPERTENSOS DE LA ZONE AGRICOLE, DE LA VILLE DE CRATO, CEARÁ.

RÉSUMÉ

D'aprês le Septième Consensus Brésilien pour le Traitement de l'Hypertension Artérielle, environ 14 millions de brésiliens sont hypertendus. L'objectif de cette étude est d'évaluer le niveau d'activité physique des hipertendus en zone agricole. La méthodologie d'évalue d'une étude épidémiologique transversale de 30 personnes hypertendus, du sexe masculin et féminin, entre 42 et 84 ans, soumis au Questioinnaire International d'Activité Physique (QIAF) version courte modifiée pour des personnes de zone agricole. Le plan d'analyse des données a utilisé l'analyse descriptive et l'inférence. Il a été adopté pour la présente étude le programme Epi-info 2002. Le niveau d'importance utilisé a été de 5%. Les résultats ont démontré que 76.70% sont classés actifs, 6.70% insuffisemment actifs A et 16.70% insuffisemment actifs B, aucun hipertendu a été classé comme sédentaire. Il se apparäit que le pourcentage d'hypertendu résidant dans le secteur agricole étudié qui pratique régulièremment des activités physiques a été très important, et que l'activité physique a eu un rôle important pour le contrôle artériel des hypertendus étudiés.

Mots clés : Hypertension, Habitudes de vie, Activité physique, zone agricole.

LEVEL OF PHYSICAL ACTIVITY IN HYPERTENSE PATIENTS FROM RURAL AREA, FROM CRATO - CEARÁ

ABSTRACT

About 14,000,000 Brazilians are hypertense according to the seventh consensus for arterial hypertension medical attendance. The goal of this study is to estimate the level of physical exercise people living in rural area do. The methodology is based on an epidemic transverse study on 30 male and female hypertense patients, between 42 to 84 years old, who answered a shortened version international physical activity questionnaire adapted for rural area people. Descriptive and deductive analysis was performed for data analysis. The Epi-Info 2002 program was adopted for this study. The meaningful level got 5%. The results have shown that 76.70%were classified as active, 6.70% as deficiently active A and 70% as deficiently active B, no hypertense patients were classified as sedentary. It can be concluded that the percentage of hypertense patients, living in rural area, who exercise regularly, was high, and exercising played an important role on controlling blood pressure in these patients.

Key words - Hypertension, Living Habits, Physical Activity, Rural Area.