

62 - ANALYSIS OF PREVALENCE OF REGULAR PHYSICAL EXERCISE AND THE RISK FACTORS ASSOCIATED WITH THE LIFESTYLE IN HYPERTENSIVE AND THEIR PARENTS.

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INTRODUCTION:

Arterial hypertension (AH) is a multifactorial disease without finding a single cause, it is known that there are environmental factors, socioeconomic, and foods that act on a single genetic basis for certain period of time, cause or facilitate the increase blood pressure and can also be induced by factors such as drugs and medicines, kidney problems, endocrine, neurogenic and others (Massie et al, 2001; CAMPOS et al., 2001). Being a highly prevalent disease in our country, affecting about 20% to 40% of adults over 18 years (SBH, 2002; Freitas, 2001; FUCHS, 2001; AYRES, 1991; REGO, 1990).

The Hypertension is most risk factors that increase cardiovascular morbidity and mortality. Data from U.S. studies show that cardiovascular risk increased among individuals with diastolic blood pressure values between 80 and 89mmHg when compared to those with the lowest blood pressure values (Joint National Committee on Prevention, JAMA, 2003).

OBJECTIVE:

To assess the prevalence of regular physical activity and risk factors associated with the lifestyle of hypertensive patients and their progeny.

METHODOLOGY:

Location, Period, Type of Study:

The investigation occurred in the Basic Health Unit (BHU) Christ the King in the district in the city of Forest Cacoal in the state of Rondonia. In the period from February 28 to April 28, 2007. The study was of direct type with descriptive approach (Pereira, 2003).

STUDY SAMPLE:

The study sample consisted of 70 patients (and respectively the same value for the progeny) selected by convenience from a population of 1311 hypertensive patients enrolled in the HIPERDIA with the Ministry of Health, a total sample of 140 respondents. The study excluded all patients not enrolled in the program Hiperdia UBS Christ the King, not with hypertension, and younger than 18 years and over 70 years.

PROTOCOLS:

To collect data we used the Questionnaire of Personal Identification and Risk Factors in order to know the individual with respect to their preferences, schedules, habits and goals. The interviews were performed in the UBS and residence of the respondents, individually and structured to collect information in a standardized instrument through a questionnaire adapted from Queiroga (2005) and Ministry of Health (2001). The study population signed the consent form, previously approved by the Ethics Committee. We collected anthropometric data (weight and height) for the analysis of Body Mass Index (BMI), using a scale TOLEDO ® brand, with a maximum load of 150 kg and a low of 1.25 kg division and 50g. For height was used type tape stadiometer with 220cm 206 model with an interval of 1cm, the respondents were instructed to remain upright, with head positioned in the Frankfurt plane. The BMI results were obtained by cutting the body mass index (WHO, 2006; Program HIPERDIA: BRAZIL / MS, 2001). To obtain measurements of waist and hip, we used a flexible anthropometric tape of 150 cm in fiberglass, Gulik ® brand, according to WHO (1998). To measure blood pressure of those interviewed in UBS was held through the method of documentary records of each patient with data on the day of interview. In the case of respondents in households where it was used in the aneroid sphygmomanometer Tycos periodically tested and calibrated, and stethoscope Rapaport, Mark Marshall according to the SBH (2002).

STATISTICAL ANALYSIS:

Data were analyzed by the laboratory of epidemiology FACIMED (FACIEPI) using parametric tests, analyzing the mean and standard deviation and percentages of the collected data, calculated by the programs Microsoft Office Excel 2003 and EPI INFO.

RESULTS:

In analyzing the characteristics of the study population, 75% of parents and 65% of parents were female. Regarding age the parents had a mean of 56.5 ± 8.5 years and the parents of 28.4 ± 8.2 years.

The results of the indicators of regular physical exercise the parents do not practice any form of physical activity in parents and 12% practice some form of regular exercise 3-6 times per week (Table 1). The parents and parent groups showed statistical differences for both BMI and for WHR. The comparison between hypertensives with the progeny of each group revealed a statistically significant, specific analysis according to the results of the variables in the overweight group ($p < 0.04$), and the group with obesity were difference ($p < 0.001$). Variable WHR where the comparison between hypertensives and their progeny obtained an average between the groups revealed a significant ($p < 0.001$), but in the hypertension and progeny among the various strata analyzed was not reflected in odds ratios significant but rather to a warning indicator that the whole group studied have high signs of chronic metabolic diseases or any health risk related to obesity (Table 2).

TABLE I - Profile of hypertensive parents and their progeny in relation to the Questionnaire indicators Regular physical exercise.

QUESTIONS	PARENTS				OFFSPRING				AVER AGE	DP		
	FEMALE		MALE		MEDIA TOTAL	DP TOTAL	FEMALE				MALE	
	NP	%	NP	%			NP	%			NP	%
ATTENDING THE ACADEMY:												
YES	3	5,7			4,33	1,881	8	17,39	3	12,5	9,464	7,306
NO	50	94	17	100%	53,78	38,81	38	82,61	21	87,5	47,2	31,82
IF THE ANSWER IS YES, HOW MANY TIMES PER WEEK:												
FROM 1 a 3 x												
FROM 3 a 6x	3	5,7			4,33	1,881	8	17,39	2	8,333	9,13	7,758
NONE	50	94	17	100%	53,78	38,81	38	82,61	22	91,67	47,54	31,41
WHAT TYPE:												
Bodybuilding							4	8,696	1	4,167	4,565	3,879
Gymnastics	3	5,7			4,33	1,881	5	10,87	1	4,167	5,623	4,964
Other									1	4,167	1	
None	50	94	17	100%	53,78	38,81	38	82,61	21	87,5	47,2	31,82
NUMBER OF PARTICIPANTS	53		17				46		24			
Total Participants	70				70							

Table II - Sample profile by gender: sampling of parents and their progeny hypertensive patients: with anthropometric indices: BMI, WHR and BP between the parents and progeny.

FEATURE	Number of Patients	Hipertensive	Children	OR (IC95%)	P
BODY MASS INDEX					
Average ±DP	140	28,7±5,7	25,3±4,8		<0,001
RCQ					
Average ±DP		0,91±0,06	0,85±0,09		<0,001
Hypertension during the interview/examination					
Yes	71	47	24	3,92(1,82-8,49)	<0,001
No	69	23	46		
Total de Participants	140				

Regarding the prevalence of hypertension the progeny of the males were 37.5% versus 10.9% female, and in the study population females larger number of people examined (Table 3).

Table III – Prevalence of hypertension among parents and progeny

Category	Hypertensive	%	Normotensive children	%	NP
Mothers	53	100	0	-	53
Parents	17	100	0	-	17
Daughters	5	10,9	41	89,3	46
Children	9	37,5	15	62,5	24
Total HÁ sons	14	20	-	-	-
Total de H.A	84	60			140

Degrees of freedom = 3 Prevalence of hypertension in children. (P <0.0001), Overall: 14/70 = 20% or 2,000 / 10,000 children of hypertensive; Daughters: 5 / 46 = 10.9% or 1,087 / 10,000 daughters of hypertensive ; Children: 9 / 24 = 37.5% or 3,750 / 10,000 offspring of hypertensive

DISCUSSION OF FINDINGS:

In the present study confirms the prevalence of hypertension among the progeny of hypertensive patients with a significant (p <0.001), indicating the need for special attention to family history of hypertension and changes in lifestyle. Prevalence of blood pressure are few and representative in the country. Surveys show that the prevalence is high and the range of between 22% and 44% (Davis, et al, 2001; Fuchus et al. 1994; Ayres, JE, 1991, Rego, 1990, IV, DHA, 2004).

The prevalence of overweight and obesity where 34.3% of surveyed are overweight and 24.3% obese, therefore there was an association between BMI and WHR risk factors related to body fat, gaining an average significant (p <0, 0001) for BMI and WHR in the hypertension and progeny. The increasing prevalence of overweight and obesity in adulthood and decreasing or stable among the elderly. (Matsuda et al, 2002, WHO, 1995; Coitinho et al, 1991 and GIANT and cols.1997 apud ABRANTES et al. 2003). Although the prevalence of overweight and obesity is associated with risk factors, the greatest impact (p <0.0001) was on hypertension, where the results obtained in our patients which prevails among the male progeny, another study has also found that risk factor, they observed higher levels of blood pressure, lipid profile and a more altered in hypertensive parents, confirming the presence of familial aggregation in the pathogenesis of hypertension (Elias et al., 2000, Fuentes et al., 2004). The interrelationship of physical activity and health have been demonstrated in studies such as the Paffenbarger et al. (1993), Pate et al. (1995), Pollock & Breuches Feigenbaum, (1995). According to Sallis and Owen (1999) physical activity can promote significant beneficial effects, particularly in the prevention of cardiovascular diseases, diabetes and some cancers. Despite knowledge of the benefits of physical activity, it is believed that most adults continue to be exposed to sedentary behavior. The prevalence of physical inactivity was observed by Matsudo et al, (2002) and Hall et al, (2003), where there was a greater significance for physical inactivity in females and confirmed the prevalence of physical inactivity in this study where it was considered Insufficient physical exercise regularly to obtain their benefits and results for the reduction of risk factors and hypertension, thus confirming studies with Pratt, Macera & Blanton (1999), USDHHS (1999), Bruce & Katzmarzyk (2002).

Although the minimum amount of exercise needed to achieve the beneficial health effects, with the fall of BP, has yet to

be defined, authors like PESCATOLO (1991) and Reaven (1991), agree that low-intensity physical activity (40-50% of VO₂ max.) seem to be as effective, and moderate exercise (70% VO₂ max.) in reducing blood pressure in hypertensive mild.]

CONCLUSION:

It was concluded that the sedentary lifestyle of the population studied was found that the progeny are at high levels of BMI may therefore be equal to their parents, confirming hereditary factors and lifestyle. In the WHI found an indicator that the progeny may develop the same diseases from parents or others related to physical inactivity and obesity. To underscore the blood pressure is thus being necessary changes in lifestyle in order to avoid a possible development or emergence of diseases in the future of syndromic progeny.

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ANALYSIS OF PREVALENCE OF REGULAR PHYSICAL EXERCISE AND THE RISK FACTORS ASSOCIATED WITH THE LIFESTYLE IN HYPERTENSIVE AND THEIR PARENTS.

ABSTRACT

The study aimed to examine the prevalence of regular physical activity and risk factors associated with the lifestyle of hypertensive patients and their progeny. Subjects were 140 patients, 70 parents and 70 parents, parents of the 53 people inside were women and also had a prevalence of 65% females in the group of parents. The patients were submitted to a questionnaire adapted from Queiroga (2005) and MS (2001) Quality of life, physical assessment (BMI and WHR) and blood pressure evaluation. Patients in the parent group had a mean age of 56.5 ± 8.5 and progenitors, 28.4 ± 8.2 years. Regarding the prevalence of the practice of regular exercise the parents do not practice any sport and the group of parents in the male group only 12% practice some form of exercise. BMI (G: 28.7 ± 5.7 and P: 25.3 ± 4.8) and WHR (G: 0.91 ± 0.06 and P = 0.85 ± 0.09) showed a statistical association relation to body fat and 20% of the parents had hypertension. We conclude that both groups showed high prevalence of sedentary and the risk factors associated with the lifestyle of the progeny indicate a high probability of occurrence of chronic degenerative diseases.

KEY WORDS: Exercise, Risk Factors, Hypertensive.

ANALYSE DE LA PREVALENCE DE EXERCICE PHYSIQUE REGULIER ET FACTEURS DE RISQUE ASSOCIES AU MODE DE VIE CHEZ LES PATIENTS HYPERTENDUS ET LEURS PARENTS

RÉSUMÉ

L'étude visait à examiner la prévalence de l'activité physique régulière et facteurs de risque associés au mode de vie des patients hypertendus et de leur progéniture. Les sujets ont été de 140 patients, 70 parents et 70 parents, les parents des 53 personnes à l'intérieur étaient des femmes et a également eu un taux de prévalence des femmes de 65% dans le groupe de parents. Les patients ont été soumis à un questionnaire adapté de Queiroga (2005) et MS (2001) Qualité de la vie, l'évaluation physique (IMC et WHR) et à l'évaluation de la tension artérielle. Les patients dans le groupe de parents avaient un âge moyen de 56,5 ± 8,5 et progéniteurs, 28,4 ± 8,2 ans. En ce qui concerne la prévalence de la pratique de l'exercice régulièrement les parents ne pratiquent pas tous les sports et le groupe de parents dans le groupe de sexe masculin seulement 12% de pratique une

certaine forme d'exercice. IMC (G: $28,7 \pm 5,7$ et P: $25,3 \pm 4,8$) et WHR (G: $0,91 \pm 0,06$ et P = $0,85 \pm 0,09$) ont montré une association statistique par rapport à la masse grasse corporelle et 20% des parents avaient de l'hypertension. Nous concluons que les deux groupes ont montré une forte prévalence de la sédentarité et les facteurs de risque associés au mode de vie de la progéniture indiquent une forte probabilité de survenue de maladies dégénératives chroniques.

MOTS CLÉS: exercice, facteurs de risque, hypertendus.

ANÁLISIS DE LA PREVALENCIA DE EJERCICIO FÍSICO REGULAR Y LOS FACTORES DE RIESGO ASOCIADOS A LA VIDA EN LOS HIPERTENSOS Y SUS PADRES

RESUMEN

El objetivo del estudio fue examinar la prevalencia de la actividad física y factores de riesgo asociados con el estilo de vida de los pacientes hipertensos y su progenie. Los sujetos fueron 140 pacientes, los padres de 70 y 70 padres de familia, los padres de las 53 personas en el interior eran mujeres y tenían una prevalencia de las mujeres del 65% en el grupo de padres. Los pacientes fueron sometidos a un cuestionario adaptado de Queiroga (2005) y MS (2001) Calidad de vida, la evaluación física (IMC y RCC) y la evaluación de la presión arterial. Los pacientes en el grupo de padres tenían una edad media de $56,5 \pm 8,5$ y progenitores, el $28,4 \pm 8,2$ años. En cuanto a la prevalencia de la práctica de ejercicio regular, los padres no practican ningún deporte y el grupo de padres en el grupo de hombres sólo el 12% la práctica de algún tipo de ejercicio. Índice de masa corporal (G: $28,7 \pm 5,7$ y P: $25,3 \pm 4,8$) y RHO (G: $0,91 \pm 0,06$ y P = $0,85 \pm 0,09$) mostró una asociación estadística relación con la grasa corporal y el 20% de los padres tenían hipertensión. Se concluye que los grupos mostraron una alta prevalencia de sedentarismo y los factores de riesgo asociados con el estilo de vida de la progenie indican una alta probabilidad de ocurrencia de las enfermedades crónicas degenerativas.

PALABRAS CLAVES: ejercicio, factores de riesgo, hipertensos.

ANÁLISE DA PREVALÊNCIA DO EXERCÍCIO FÍSICO REGULAR E OS FATORES DE RISCO ASSOCIADOS AO ESTILO DE VIDA EM HIPERTENSOS E SEUS PROGENITORES.

RESUMO

O estudo teve como objetivo analisar a prevalência de exercício físico regular e os fatores de risco associados ao estilo de vida dos hipertensos e seus progênitos. Foram selecionados 140 pacientes, sendo 70 genitores e 70 progenitores, dentro dos genitores 53 pessoas eram do sexo feminino e também houve predominância de 65% do sexo feminino no grupo dos progenitores. Os pacientes foram submetidos à aplicação de um questionário adaptado de Queiroga (2005) e MS (2001) de qualidade de vida, avaliação física (IMC e RCQ) e avaliação da pressão arterial. Os pacientes do grupo dos genitores apresentaram idade média de $56,5 \pm 8,5$ e progenitores, de $28,4 \pm 8,2$ anos. Em relação à prevalência da prática do exercício regular os genitores não praticam nenhuma modalidade e no grupo dos progenitores o grupo masculino apenas 12% praticam alguma forma de exercício físico. O IMC (G: $28,7 \pm 5,7$ e P: $25,3 \pm 4,8$) e o RCQ (G: $0,91 \pm 0,06$ e P: $0,85 \pm 0,09$) demonstraram associação estatística em relação à adiposidade corporal e 20% dos progenitores apresentaram hipertensão arterial. Conclui-se que ambos os grupos apresentaram alta prevalência de sedentários e os fatores de riscos associados ao estilo de vida dos progênitos indicam alta probabilidade de aparecimento de doenças crônicas degenerativas.

PALAVRAS-CHAVES: Exercício Físico, Fatores de Risco, Hipertensos.