116 - FACTORS ASSOCIATED TO THE DEVELOPMENT OF THE ARTERIAL HYPERTENSION IN ADULT PEOPLE OF ANÁPOLIS

SAULO SANTOS E SILVA, MÁRCIO ANTONIO DE PAULA, MEIRY DE SOUZA MOURA MAIA,
NICOLE CAMAPUM BILLERBECK, IRANSÉ OLIVEIRA SILVA.
UniEVANGÉLICA - Physical Education Course - LAFE - Anápolis - Goiás - Brazil.
iranseoliveira@hotmail.com

Introduction

The arterial hypertension is now one of the largest and principal risk factors for the health in Brazil. It is together with the obesity, dislipidemia, resistance to the insulin hiperinsulinemia and/or intolerance to the glucose, in a same person, results in the call syndrome metabolic or syndrome X. it is. Also associated to serious risks of cardiovascular morbidness. The arterial hypertension also influences directly in the development of other cardiovascular diseases, they are them: sharp infarct of the miocárdio, cerebral vascular accident (CVA), inadequacy heart congestiva, outlying arterial inadequacy and premature death.

In our days, the arterial hypertension is to principal cause of death of the population in developed countries (TRINDADE et al, 1998).

The blood pressure is something necessary to the human life, however patterns exist. ACSM (2003) it presented a picture with the referring values of the blood pressure:

Picture 1 - Classification of the blood pressure

CATEGORY	PAS (mmHg)		PAD (mmHg)
Gtear	< 120	And	< 80
Normal	120 - 129	And	80 - 84
Normal higt	130 - 139	Or	85 - 89
Hipertension			
Apprenticeship1	140 - 159	Or	90 - 99
Apprenticeship2	160 - 179	Or	100 - 109
Apprenticeship3	180 or >	Or	110 or >

Source: ACSM (2003)

Mion Jr. (2001), during the third Brazilian Consent of Arterial Hypertension, it established a treatment for three hypertension levels that A, B, and C were adopted respectively.

As referred him author, it is recommended for people with hypertension of the risk group A, treatment without drugs isolated during 12 months, that don't present risk factors and nor organ-objective lesions. And during 6 months for patients of the group B, that present risk factors, except diabetes melito, but they don't present lesions in the organ-objective. Not having control for patients of the group C, that present organ-objective lesions or disease cardiovascular clinically identifiable and/or diabetes melito, treatment immediate with drugs is recommended, associated to the without drugs.

With relationship to the risk factors, age, hereditariness, sex and race, nothing can be made for the treatment of the hypertension, but factors that can be treated exist or controlled as it is the case of the obesity, that is one of the largest problems, diabetes, cardiovascular diseases, I smoke, drunk alcoholic, stress, among others. The diet is also another very important factor that it should be taken into account in the treatment, studies reveal that amounts of salt ingested a day they should be at the most of 6g.The simplest indicator of there is it is the solemnity-referred morbidness.

Being done necessary, like this, the treatment of reduction of the mortality and cardiovascular morbidness, as well as in the prevention of cardiovascular accidents, heart and renal inadequacy (PESSUTO; CARVALHO, 1998).

The exercise prescription for people with hypertension is practically identical to recommended her/it for the normal individuals. Studies reveal that the activity that exercises better benefit on the people with hypertension is the activity of low intensity among 20 and 70% of the functional maximum capacity. Others showed that walks of moderate intensity reduced from 13 to 18 mmHg the values of the PAS and of PAD, that in a work that made possible that result after 10 weeks (PINTO, 2003).

Object General: To correlate factors associated to the development of the Arterial Hypertension in adult individuals of Anápolis.

Specific objectives:

To present the correlation between level of physical activity and Arterial Hypertension;
To present the correlation between education level and Arterial Hypertension;
To present the correlation between sex and Arterial Hypertension;

Methodology

The present work, whose initiative came due to the Program of Scientific Initiation (PSI) of UniEVANGÉLICA, it was accomplished in Anápolis-Go, where we evaluated through a questionnaire with 10 items, 203 (two hundred three) people with hypertension of both sexes with age between 13 and 90 years, residents in this city.

To participate of the study the appraised he/she had to be people with hypertension, to sign the term of illustrious free consent and to answer all the items of the questionnaire, being these: name; date of birth; sex; weight; height; blood pressure; education; color of the skin; how many times a week he/she practiced some physical activity; how long the session of physical activity lasted; if your activity was guided by somebody; which the types of physical activity that more practiced; in childhood, how times a week he/she practiced some physical activity; it drinks coffee during the day; which the cause of your hypertension; it drinks water during the day; to yours to see, which the limitations of the person with hypertension.

STATISTICAL ANALYSIS

After the collection, the data were tabulated in a spreadsheet, and transferred for the program SPSS version 10.0, where we applied the correlation test. The level of applied significância was of $p < 0,01$.

Results

The total sample belonged to 203 people with average of age of 54,02 ± 14, 23, with a percentile distribution of 34% of the masculine sex and 66% of the feminine sex.

We observed that the amount of women with hypertension that you/they seek clinics is much larger than the amount of men.

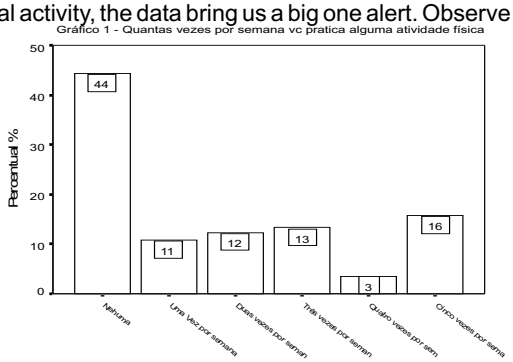
The adiposity was esteemed with base in ICM (Index of Corporal Mass) and we observed the following distribution: 33% eutrophic, 34% with overweight and 33% with obesity.

With relationship to the education of the sample, we observed that 25% studied until the first phase of the fundamental teaching, 29% completed the fundamental, 31% arrived until the medium teaching and just

6% reached the higher education. In the analysis, the education is correlated with other variables as we will see more the front in the work.

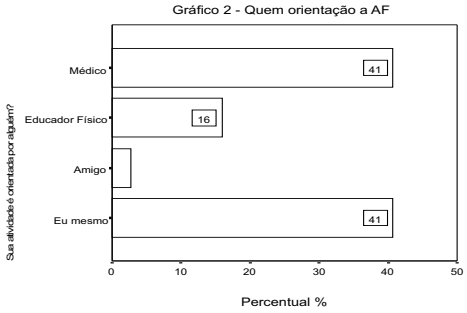
As the color of the skin, 50% were classified as white, 7% as black, 3% as yellow and 40% brown.

When we spoke about physical activity, the data bring us a big one alert. Observe in the graph 1.



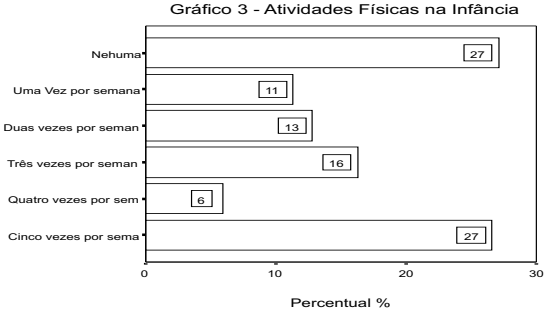
Of the 56% that declared that they make physical activity, 29% don't get to do 30 minutes of activity.

With relationship to the orientation, the data are alarming, as we can observe below in the graph.



For us to verify the activity physics more practiced, we excluded those that didn't make activities, the result points that 81% of the people practice walks, and, the second activity more practiced it is the muscular activity with 8%.

In the childhood of the appraised ones, the practice of physical activity had a different distribution, however it already demonstrates a high inactivity degree for the phase, as we can observe in the graph 3.



With relationship to the cause of the hypertension, 42% attribute á hereditary factors, 19% á obesity and 11% believe that the sedentarism took them the hypertension.

With relationship to the correlations, we observed through the tests, that the largest hipertensos prevalency in the studied sample if he/she gave in individuals of the feminine sex, however largest PA's were evidenced in the men ($p < 0,01$). The women are relatively protected of cardiovascular events before the menopause. It was also evidenced that the more he/she is practiced activity, smaller the SHOVEL, in the same way, the more time the smaller session lasts the SHOVEL ($p < 0,01$).

A correlation doesn't exist between education and Hypertension, the correlation value found it was of -0,078.

The hypertension in this sample was related the hereditariness, to the sex (the feminine sex had a larger prevalency), the age (the more larger age the pressure), the adiposity (most " 67% " had overweight or obesity).

Discussion

According to IBGE (2003), the life hope of the Brazilian when being born is of 71 years. The women live 7,6 on average more years than the men, this fact feels in function that the men seek less the services of health and they are also more affected for the violence when young. This fact affirms the larger amount of appraised women in this study.

In agreement with IMC we have 33% of eutrophic people and 67% with overweight and obesity. Seidell and Flegal (1997) they affirm that IMC tends to increase with the age, fact this observed in this research. The same authors portray that between the 60 and 70 years is the time of larger prevalency.

In function of the color of the skin, the found data are differed a little of the sensu 2000 (IBGE, 2003) that presents 48% white, 34% brown. This fact might have happened in function of the own racial discrimination.

With relationship to the physical activity, we observed in the literature that the lack of physical activity, he/she can bring harmful consequences the life where we highlighted: diabetes, emergence of heart diseases, I increase of the glutting risk Dietz

(1996).

Hahn, Rothenberg and Marks (1986) they tell that in the United States, the sedentary lifestyle contributes in the deaths for chronic diseases, including coronary diseases, glutting and lap-rectal cancer, only losing for I inhabit him/it of smoking and obesity. It was evidenced in our study that 44% of the studied sample don't make any type of physical activity and 32% only do 3 times or a week. For Matsudo, Mahecha and Matsudo (1992),com moving forward of the age a series of alterations goes being verified, therefore we tended to reduce the aptitude and the physical performance. However, these effects appear in function of the lack of physical activity. Being like this, the physical exercise should be practiced regularly, for at least, thirty minutes without leaving of taking in consideration each individual's individuality. The physical activities more recommended they are the activities aerobics of low impact (to walk, to swim, to pedal), for they be associated to a smaller risk of lesions. In the sample of our study 81% of the people they practice walks.

With relationship to the orientation of the physical activities, a lot he/she will have to be done because in the article 1st of the Document of Professional Intervention of the physical education, it is evidenced that this is an attribution of this professional type, meantime in agreement with the data evidenced in this research, we are far away from this reality.

With relationship to the correlations, we observed through the tests, that the largest hipertensos prevalency in the studied sample if he/she gave in individuals of the feminine sex, however largest PA's were evidenced in the men ($p < 0,01$). The women are relatively protected of cardiovascular events before the menopause. It was also evidenced that the more he/she is practiced activity, smaller the SHOVEL, in the same way, the more time the smaller session lasts the SHOVEL ($p < 0,01$).

Conclusion

In developing of this study, it was evidenced that the hereditariness, the obesity and the sex healthy factors directly associated to the Arterial Hypertension;

The more he/she is practiced physical activity, minor it is the SHOVEL, in way to still be gotten better more when the activity has a superior duration to thirty minutes diaries. Being like this, he/she practices her/it to regulate of physical activity he/she has to be a constant in the life of the hipertenso.

The people of brown color presented higher values of SHOVEL.

The lifted up data in this study should be more explored, therefore several analyses can be accomplished so that we can present a larger number of information.

Bibliographical References

AMERICAN COLLEGE OF SPORTS MEDICINE: **Diretrizes do ACSM para os Testes de Esforço e sua Prescrição**, Avaliação Clínica Pré-Teste, cap. 3, Editora Guanabara, Rio de Janeiro, RJ., 2003, Sexta edição, pág. 28.

DIETZ W.H. The role of lifestyle in health: the epidemiology and consequences of inactivity. **Proc. Nutr. Soc**. 55: 829-840, 1996.

HAHN R.A, TEUTSCH S.M, ROTHENBERG R.B, MARKS J.S. Excess death from nine chronic diseases in the Unite States. **JAMA** 264: 2654-2659, 1986.

MATSUDO, Sandra Mahecha; MATSUDO, Victor K. R. Prescrisão e benefícios da atividade física na terceira idade. **Revista Brasileira de Ciências e Movimento**;6(4):19-30, out. 1992.

MION JR, D., PIERIN, A.M. G., GUIMARAES, A. **Tratamento da hipertensão arterial - respostas de médicos brasileiros a um inquérito**. Rev. Assoc. Med. Bras., jul./set. 2001, vol.47, no.3, p.249-254. ISSN 0104-4230.

PESSUTO, Janete , CARVALHO, Emília Campos de. Fatores de risco em indivíduos com hipertensão arterial. **Rev. Latino Americana de Enfermagem**, jan. 1998, vol.6, no.1, p.33-39. ISSN 0104-1169.

PINTO, V. L. M. *et al*. Influência de programas não-formais de exercícios (doméstico e comunitário) sobre a aptidão física, pressão arterial e variáveis bioquímicas em pacientes hipertensos. **Revista Brasileira de Medicina do Esporte**, v. 9, n. 5, Niterói, set./out. 2003. Disponível em: < http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1517-86922003000500003&lng=pt&nrm=iso>. Acesso em: 14 fev. 2006.

SEIDELL, J. C. Time trends in obesity: na epidemiological perspective. **Hormone and Metabolic Reseach**, 1997.

TRINDADE, Ibsen S., *et al*. Prevalência da hipertensão arterial sistêmica na população urbana de Passo Fundo (RS). **Arq. Bras. Cardiol**., ago. 1998, vol.71, no.2, p.127-130. ISSN 0066-782X.

FACTORS ASSOCIATED TO THE DEVELOPMENT OF THE ARTERIAL HYPERTENSION IN ADULT PEOPLE OF ANÁPOLIS

The arterial hypertension is now one of the largest risk factors for the health in Brazil. The General objective of this study was to correlate factors associated to the development of the Arterial Hypertension in adult individuals of Anápolis. They were appraised through a questionnaire with 10 items, 203 (two hundred three) people with hypertension of both sexes with age between 13 and 90 years, residents in this city. To participate of the study the appraised he/she had to be a person with hypertension, to sign the term of illustrious free consent and to answer all the items of the questionnaire, being these: name; date of birth; sex; weight; height; blood pressure; education; color of the skin; how many times a week he/she practiced some physical activity; how long the session of physical activity lasted; if your activity was guided by somebody; which the types of physical activity that more practiced; in childhood, how many times a week he/she practiced some physical activity; it drinks coffee during the day; which the cause of your hypertension; it drinks water during the day; to yours to see, which the limitations of the person with hypertension. After the collection, the data were tabulated in a spreadsheet of SPSS version 10.0, where we applied the correlation test. The level of applied was of $p < 0,01$. As the physical activity, we observed in the literature that the lack of physical activity, he/she can bring harmful consequences the life where we highlighted: diabetes, emergence of heart diseases, I increase of the glutting risk Dietz (1996). In developing of this study, it was evidenced that the hereditariness, the obesity and the sex healthy factors directly associated the Arterial Hypertension. The more he/she is practiced physical activity minor it is the BP. This improvement is still larger when the activity has a superior duration to thirty minutes diaries. Being practices like this her/it to regulate of physical activity he/she has to be a constant in the life of the person with hypertension. The people of brown color presented higher values of BP.

Words Key: Factors. Hypertension. Physical activity.

FACTEURS ASSOCIES AU DEVELOPPEMENT DE L´HYPERTENSION ARTERIALE DANS LES PERSONNES ADULTES DE ANAPOLIS

L´hypertension arteriale est à présent un de plus grans risques pour la santé du Brésil. L`objectif général de cet étude a été d´ établir une rélation entre facteurs associés au développement de l´hypertenssion arteriale chez les personnes adultes de Anápolis. Elles ont été évaluées par un questionnaire de 10 items, 203 (deux cent trois) hypertenses de deux sexes, âgées entre 13 et 90 ans, et qui habitent dans cette ville. Pour participer de cet étude, l´ évalué devait être hypertense, signer le terme de consentiment, libre et éclairé et répondre à tous les items du questionnaire comme : nom, date de naissance ;sexe, poids, hauteur, pression arteriale ; couleur de la peau, scolarité ; combien de fois par semaine practiquait une activité physique ; combien de temps durait la séance d´activité physique ; si son activité était orientée ; quelles étaient les types d´activitées physique qu´il practiquait ; pendant l´enfance, combien de fois par semaine practiquait une activité physique ; avec quelle fréquance il prenait du café par jour ; quelle était la cause de l´hypertension ; s´il buvait de l´eau pendant le jour ; à son avis, quelles étaient les limitations de la personne hypertense. Après la collecte, les donnés ont été tabulés dans une carte de SPSS,type 10,0, où nous appliquons le teste de correlation. Le niveau de signification appliqué a été de p< 0,01. À propos de l´activité physique, nous observons dans la littérature que l´absence d´activité physique, peut apporter des conséquences nuisibles pour la vie d´où nous détachons : diabète, apparition de maladies cardiaques, aumentation des risques d´enfarte (Dietz, 1996). Pendant cet étude, on a mis en évidence que l´hérédité à l´obésité et le sexe sont des facteurs directement associés à l´hypertenssion arteriale. Si l´on practique beaucoup d´ activité physique, plus petit sera le P.A.. Cette amélioration est encore plus grande quand l´activité a une durée supérieur à trente minutes par jour. De cette manière la pratique régulière d´activité physique doit être une constante dans la vie de l´hypertense. Les personnes de couleur brune ont présenté des valeurs plus élévés de P.A.

Mots clés : Facteurs - Hypertension - Activité Physique

FACTORES ASOCIADOS AL DESARROLLO DE LA HIPERTENSION ARTERIAL EN UNA POBLACION ADULTA DE ANAPOLIS

Actualmente en Brasil, la hipertensión arterial es uno de los mayores factores de riesgo para la salud. El objetivo General de este estudio fué correlacionar factores asociados al desarrollo de la hipertensión arterial en sujetos adultos de Anápolis. Con un formulario de 10 ítenes, fueron estudiados 203 (docientos tres) hipertensos, hombres y mujeres, con edades entre 13 y 90 años, residentes en esta ciudad. Los participantes fueron hipertensos, quienes firmaron libremente un consentimiento informado, respondiendo la totalidad de los ítenes planteados que se detallan a seguir: nombre, fecha de nacimiento, sexo, peso, altura, presión arterial, escolaridad, color de piel, número de actividades fisicas realizadas semanalmente, duración de la sesión de actividad física, si recibió alguna orientación para realizar dicha actividad, tipos de actividad física que mas realizaba, actividad física practicada semanalmente durante la infancia , consumo de café durante el dia, causa de su hipertensión arterial, consumo de agua durante el día, limitaciones del hipertenso según la opinión del entrevistado. Luego de la recolección, la información fue formatada en una planilla de SPSS versión 10.0. El nivel de significancia utilizado fué un valor p<0,01. En relación a la actividad física, observamos en la literatura que, la falta de actividad física, puede traer consecuencias dañinas a la vida, destacando la diabetes, la aparición de enfermedades cardíacas y aumento del riesgo de infarto (Dietz 1996). El desarrollo del estudio pone en evidencia que la hereditariedad, la obesidad y el sexo, son factores que se relacionan directamente con la hipertensión arterial. Cuanto mas se practica actividad física, menor es la PA. Este benefício es aún mayor cuando la actividad fisica tiene una duración superior a treinta minutos diarios. Por lo tanto, la actividad física practicada regularmente, debe ser una constante en la vida del hipertenso. Las personas de color pardo presentaron valores de PA superiores.

Palabras Llave:Fatores, Hipertensión, Actividad Física.

FATORES ASSOCIADOS AO DESENVOLVIMENTO DA HIPERTENSÃO ARTERIAL EM INDÍVIDUOS ADULTOS DE ANÁPOLIS

A hipertensão arterial é atualmente um dos maiores fatores de risco para a saúde no Brasil. O objetivo Geral deste estudo foi correlacionar fatores associados ao desenvolvimento da Hipertensão Arterial em indivíduos adultos de Anápolis. Foram avaliados através de um questionário com 10 itens, 203 (duzentos e três) hipertensos de ambos os sexos com idade entre 13 e 90 anos, residentes nesta cidade. Para participar do estudo o avaliado tinha que ser hipertenso, assinar o termo de consentimento livre esclarecido e responder todos os itens do questionário, sendo estes: nome; data de nascimento; sexo; peso; altura; pressão arterial; escolaridade; cor da pele; quantas vezes por semana praticava alguma atividade física; quanto tempo durava a sessão de atividade física; se a sua atividade foi orientada por alguém; quais os tipos de atividade física que mais praticava; na infância.quantas vezes por semana praticava alguma atividade física; toma café durante o dia; qual a causa da sua hipertensão; toma água durante o dia; ao seu ver, quais as limitações do hipertenso. Após a coleta, os dados foram tabulados em uma planilha de SPSS versão 10.0, onde aplicamos o teste de correlação. O nível de significância aplicado foi de p<0,01. Quanto a atividade física, observamos na literatura que a falta de atividade física, pode trazer conseqüências danosas a vida onde destacamos: diabetes, aparecimento de doenças cardíacas, aumento do risco de enfarte Dietz (1996). No desenvolver deste estudo, ficou evidenciado que a hereditariedade, a obesidade e o sexo são fatores diretamente associados a Hipertensão Arterial. Quanto mais se pratica atividade física, menor é a PA. Esta melhora é ainda maior quando a atividade tem uma duração superior a trinta minutos diários. Sendo assim a pratica regular de atividade física tem que ser uma constante na vida do hipertenso. As pessoas de cor parda apresentaram valores mais elevados de PA.

Palavras Chave: Fatores. Hipertensão. Atividade Física.