

# Prevalencia de hipertensión arterial en las personas mayores de la Ciudad de San Francisco de Campeche

*Prevalence of hypertension in the elderly of the city of San Francisco de Campeche*

*Prevalência de hipertensão em pessoas sobre a cidade de San Francisco de Campeche*

**Ana Rosa Can Valle**

Facultad de Enfermería, Universidad Autónoma de Campeche, México  
[anarocan@uacam.mx](mailto:anarocan@uacam.mx)

**Betty Sarabia Alcocer**

Facultad de Medicina, Universidad Autónoma de Campeche, México  
[bmsarabi@uacam.mx](mailto:bmsarabi@uacam.mx)

## Resumen

En México y en otros países del mundo prevalece la hipertensión arterial, una enfermedad crónica no transmisible o enfermedad crónica esencial de la persona mayor. Dicho padecimiento es un factor de riesgo cardiovascular que se ha incrementado exponencialmente en las últimas décadas, de etiología multifactorial y a veces asintomática en sus fases iniciales, por lo que es importante detectarla a tiempo para evitar otras complicaciones.

El objetivo de esta investigación es identificar la prevalencia de la hipertensión arterial en las personas mayores. Para ello se llevó a cabo una investigación descriptiva en un grupo de población de 219 personas mayores de 60 años o más de edad, con un enfoque cualitativo, y se aplicó el cuestionario de detección de factores de riesgo para prevenir enfermedades crónico-degenerativas. El análisis de datos se realizó con el programa Excel. En los resultados se encontró que en los factores de riesgo agregados, 35 % presenta alguna ECD además de hipertensión, 30 % padece o ha padecido de dislipidemia, 19 % lleva malos hábitos alimenticios (dieta alta en grasas y pobre en frutas y verduras, consumo excesivo de

sal) y un estilo de vida no saludable (sedentarismo, periodos largos de ayuno), 7 % consume alguna sustancia tóxica como tabaco y alcohol, y 9 % no sabe si presenta alguna otra ECD. En conclusión, los diferentes factores de riesgo desembocan en la hipertensión, donde el sexo femenino fue el más afectado y las personas mayores por lo general padecen además otro tipo de enfermedad crónico-degenerativa, como colesterol, triglicéridos u obesidad, siendo la diabetes mellitus la más frecuente.

**Palabras clave:** hipertensión arterial, factores de riesgo, personas mayores.

### Abstract

In Mexico and other countries of the world prevails hypertension, a chronic non-transmissible disease or essential elder chronic disease. This condition is a cardiovascular risk factor that has grown exponentially in recent decades, of multifactorial etiology and sometimes asymptomatic in its early stages, so it is important to catch it early to avoid complications.

The objective of this research is to identify the prevalence of hypertension in the elderly. For this purpose a descriptive research was conducted in a population of 219 people over 60 years or more, with a qualitative approach, and the detection of risk factors questionnaire was applied to prevent chronic degenerative diseases (ECD by its name in Spanish). Data analysis was performed with the MS Excel. The results found that in the aggregate risk factors, 35% presents some ECD as well as hypertension, 30% have or have ever had of Dyslipidemia, 19% has poor eating habits (diet high in fat and low in fruits and vegetables, excessive consumption of salt) and an unhealthy lifestyle (sedentary lifestyle, long periods of fasting), 7% eat any poison such as tobacco and alcohol, and 9% don't know if has any other ECD. In conclusion, different risk factors lead to hypertension, where the female was the most affected and the elderly usually suffer in addition other types of chronic degenerative diseases, such as cholesterol, triglycerides and obesity disease, being diabetes mellitus the most frequent.

**Key Words:** arterial hypertension, risk factors, elderly, seniors.

## Resumo

No México e em outros países do mundo prevalece a hipertensão, doenças não transmissíveis crônicas ou doença crônica essencial dos idosos. Tal condição é um fator de risco cardiovascular que tem aumentado exponencialmente nas últimas décadas, de etiologia multifatorial e, por vezes, assintomática em seus estágios iniciais, por isso é importante para pegá-lo a tempo de evitar outras complicações.

O objetivo desta pesquisa é identificar a prevalência de hipertensão em idosos. Foi realizado um estudo descritivo em um grupo populacional de 219 pessoas com 60 anos ou mais, com uma abordagem e um questionário detecção qualitativa dos fatores de risco aplicadas para prevenir doenças crônico-degenerativas. A análise dos dados foi realizada utilizando o programa Excel. Os resultados revelaram que os fatores de risco agregado, 35% têm alguma adição ECD à hipertensão, 30% têm ou tiveram dislipidemia, 19% têm sido maus hábitos alimentares (dieta rica em gordura e pobre em frutas e vegetais, o consumo excesso de sal) e um estilo de vida saudável (sedentarismo, longos períodos de jejum), 7% consomem substâncias tóxicas, como rapé e álcool, e 9% não sabem se você tiver qualquer outro ECD. Em conclusão, os diferentes fatores de risco levar à hipertensão, onde a fêmea foi o mais afetado e os idosos geralmente também sofrem de outras doenças crônicas degenerativas, tais como colesterol, triglicérides ou obesos, com diabetes mellitus mais frequentes.

**Palavras-chave:** hipertensão arterial, fatores de risco, pessoas mais velhas.

**Fecha recepción:** Enero 2016

**Fecha aceptación:** Julio 2016

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## Introduction

In Mexico, as in other emerging countries and most of the developed ones, hypertension prevails, one of the non-communicable chronic diseases or essential elder chronic diseases, which has grown exponentially in recent decades and now forms part of the so-called cardiovascular risk factors. Its etiology is multifactorial and may be asymptomatic in the initial stages, in such a way that it is important to catch it early to avoid complications.

High blood pressure has a high prevalence in the older population and brings complications that affect the quality of life.

High blood pressure is now chronic disease commonest in humanity, especially in developed countries, and whose importance increases because it makes to increase blood pressure and, therefore, to grow the morbidity and mortality of the population affected.

Also, hypertension is the risk factor most important when it comes to cardiovascular diseases, when are associated with other disorders, for example, obesity, high cholesterol, consumption of alcohol or tobacco, increases the probability of suffering a serious complication of cardiac, neurological, or any other organ.

High blood pressure has been defined on the basis of the figures of diastolic pressure. Currently there are evidence that the systolic pressure is also a cardiovascular risk factor, so the HTA must be defined according to both values. The delimitation of the normal values of blood pressure is complicated and, by definition, arbitrary. That is why these values are established by agreement on the basis of population risk, based on the results of numerous epidemiological studies and intervention, whose reduction has demonstrated clear benefits. Thus, an adult is considered hypertensive when it presents a persistent elevation of PA 140/90 mm Hg systolic and diastolic numbers respectively (Moser, 2004).

Arterial hypertension (AHT) is one of the major risk factors for cardiovascular disease, renal and Brain AVM (arteriovenous malformation), causes of mortality in México. Thus, people with normal blood pressure are considered those with systolic blood pressure below 120 mmHg and diastolic blood pressure below 80 mmHg. Pre-hypertension is considered to be systolic blood pressure that is between 120- 139 mmHg and diastolic blood pressure at which it is between 80-89 mmHg. Patients who have not received drug treatment need to change their lifestyle. Patients with systolic blood pressure between 140 - 159 mmHg and diastolic blood pressure between 90 - 99 mmHg are considered to be stage 1 hypertensive patients, and with systolic blood pressure greater than or equal to 160 mmHg and diastolic blood pressure greater than or equal to 100 mmHg, Hypertensive stage 2, therefore need pharmacological treatment to reduce their blood pressure figures and the risk of cardiovascular processes (Stevens G., Díaz R., Thomas K., 2008).

Another classification of arterial hypertension is done according to its cause, which can be primary (ie has a known cause) or secondary (for renal, vascular, endocrine or pregnancy disorders). According to organic damage, in stage 1 there is organic damage, in phase 2 there are two or more organic damages, there may be left ventricular hypertrophy, increased plasma creatinine and increased proteinuria. In stage 3 there is damage to any organ such as kidney, heart, retina and brain (Stevens G., Díaz R., Thomas K., 2008).

Although epidemiological data from years ago indicate that the risk of hypertension is greater in men than in women, and that the age of onset of this disease occurs from 45 years and 55 years, respectively, currently in the Medical practice the proportions have been matched between both sexes and even increasingly occurring at earlier ages (Baquera, 2010).

The etiopathogenesis is not yet known, but different studies indicate that genetic and environmental factors play an important role in the development of primary HT. The following theories are related to this complex disease:

- Gen Genetic factors
- Food
- Environmental
- Psychological
- Selye stress and adaptive syndromes
- M Miasnicov's neurovisceral theory
- Sod sodium-potassium ions and ATPase. Other ions
- Imbalance in the cGMP-cAMP relationship
- Ren Renin-Angiotensin-Aldosterone System
- Prostaglandins
- Kal Kalicrein-Kinina System
- Metabolism of carbohydrates
- SNC
- Endothelin
- Sedentary lifestyle

The complications may be hypertensive heart disease, arteriosclerosis, thrombosis, cerebral hemorrhage, arterial sclerosis or renal failure.

The knowledge of the etiological nature of hypertension is fundamentally based on the physiological phenomena that explain the regulation of blood pressure, which in turn can be considered as the product of systolic volume due to peripheral resistance. To this can be added the elasticity of the arterial wall, all conditioned by multiple influences and exquisite regulation. The systolic volume, that is, the amount of blood that the heart can release each systole, is influenced by several factors:

- ✓ Venous return
- ✓ Cardiac contraction force
- ✓ The frequency (rhythm)
- ✓ But it is the peripheral resistance to which we are obliged to pay preferential attention. This resistance is determined by arterial tone, which from the point of view of arterial light, forces us to consider several causes:
  - ✓ The quality of blood (viscosity)
  - ✓ The caliber of light
  - ✓ Circulating blood velocity

## **Material and methods**

### **Objective**

To identify the prevalence of hypertension in the elderly.

### **Specific objectives**

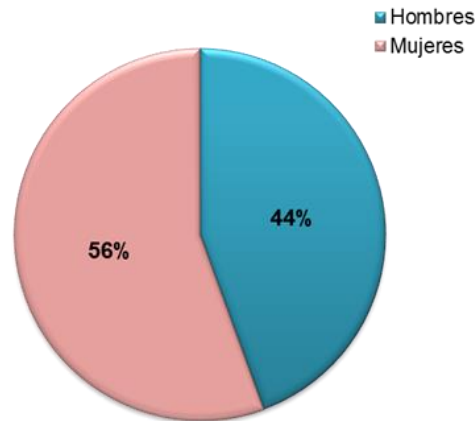
- Determine prevalence by sex.
- To determine the most frequent risk factors associated with the prevalence of hypertension.

The research is descriptive, with a qualitative approach. The questionnaire for the detection of risk factors for the prevention of chronic-degenerative diseases was applied and a file with personal data was collected from a sample of 219 people aged 60 years or older in the City of San Francisco de Campeche. Data analysis was done using the Excel program.

**Results**

Of the total number of patients treated in the module for the Prevention of Disability of Chronic Degenerative Diseases, 219 hypertensive elderly people were detected, who go to a rehabilitation center in the City of San Francisco de Campeche to perform some physical therapy, according to the pathology what are they presenting. Of these, 120 patients were female and 99 were male (Figure 1).

**Total de Pacientes Hipertensos por Género**

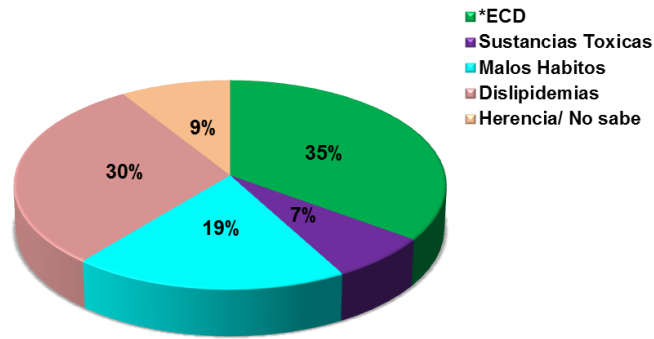


Del total de los pacientes detectados hipertensos se observan más porcentaje de prevalencia en mujeres.

Gráfica1

With regard to the aggregate risk factors of the total, 35% had some ECD in addition to hypertension, 30% had or had dyslipidemia, 19% had poor eating habits (a diet high in fat and low in fruits and vegetables, consumption Excessive salt) and an unhealthy lifestyle (sedentary lifestyle, long periods of fasting), 7% consume some toxic substance like tobacco and alcohol, and 9% do not know if they have any other ECD. Among the ECDs, diabetes mellitus (Figure 2) was the most frequent factor associated with hypertension.

Factores de Riesgo Agregados



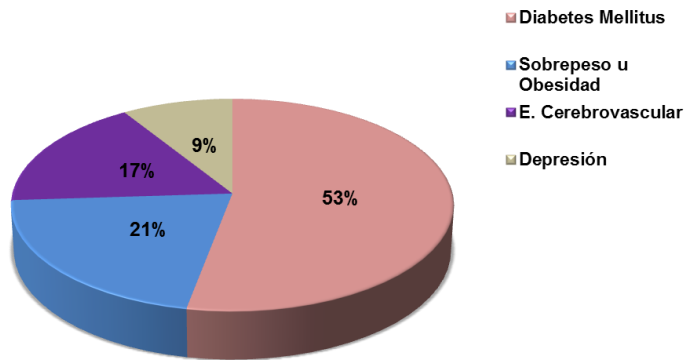
\*Enfermedades Crónico Degenerativas.

La gráfica establecida muestra que los pacientes detectados como hipertensos presentaron con más prevalencia los factores de riesgo mencionados.

Gráfica 2

Chronic-degenerative diseases prevail in hypertensive patients. Diabetes reached 53%, overweight and obesity 21%, cerebrovascular diseases 17% and, finally, depression 9%.

ECD con más Prevalencia en Pacientes Hipertensos



Gráfica 3



## CONCLUSION

The female sex was the most affected. Hypertensive patients usually suffer from another chronic degenerative disease and cholesterol and triglyceride disorders. Patients also had an aggregated ECD, the most frequent being diabetes mellitus. Predominant overweight, hypertension and diabetes. With respect to the added risk factors, 35% had some ECD added to hypertension, 30% had or had dyslipidemia, and 19% had poor eating habits.

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