



The impact of arterial hypertension as a cardiovascular risk factor in women: epidemiology and prevalence

Impacto de la hipertensión arterial como factor de riesgo cardiovascular: epidemiología y prevalencia

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INTRODUCTION

It is widely known that cardiovascular diseases (CVD) are the leading cause of death worldwide.¹ Systemic arterial hypertension (SAH) is a major public health concern worldwide. It is a significant risk factor for cardiovascular diseases, including heart attacks, strokes, and other vascular complications. While hypertension affects both men and women, there are gender-specific considerations that make its impact on women particularly relevant. In recent years there has been growing recognition of the unique epidemiological and prevalence patterns of arterial hypertension in women.

These CVD have origins in the existence and persistence of risk factors, among which SAH stands out as the leading risk factor for CVD worldwide.^{2,3} It has a high global prevalence ranging from 20 to 40%, with a worldwide average of 22% of people affected.⁴ In Latin America, it leads to a loss of up to 5.1 years of life,⁵ making it the risk factor contributing the most to morbidity and mortality from all causes.⁶

This article aims to explore the epidemiology and prevalence of arterial hypertension in women.

EPIDEMIOLOGY AND PREVALENCE

The prevalence of SAH varies according to regions and population groups, but it is

generally considered one of the main chronic conditions worldwide. Prevalence estimates may change over time due to various factors such as changes in lifestyle, population aging, and early disease detection.

Here is an overview of the prevalence of SAH worldwide, in Mexico, and especially in women:

Global prevalence of arterial hypertension: according to the World Health Organization (WHO):

1. 1.28 billion adults aged 30–79 years worldwide have hypertension, most (two-thirds) living in low- and middle-income countries.
2. An estimated 46% of adults with hypertension are unaware that they have the condition.
3. Less than half of adults (42%) with hypertension are diagnosed and treated.
4. Approximately one in five adults (21%) with hypertension have it under control.⁷

Prevalence in Mexico: SAH is a significant public health issue in Mexico. According to the National Health and Nutrition Survey (ENSANUT) 2020, the prevalence of hypertension in adults aged over 20 years in Mexico is 30.2% (> 140/90 mmHg criteria) or 49.4% (> 130/80 mmHg criteria), the prevalence was 44.0% in women and 55.3% in men.⁸

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It is essential to highlight that these figures may vary according to the source and criteria used to define SAH in each study. Additionally, prevalence can be influenced by socioeconomic, cultural, and healthcare access factors in different regions of the world and in Mexico. Early detection, appropriate treatment, and the promotion of healthy lifestyles are crucial to prevent, and control SAH and its consequences in the population, especially in women.

In general, the prevalence of SAH tends to increase with age in both sexes, but it is less common in women than in men before menopause. It is still unclear whether this difference is related to the protective effect of estrogens or other yet-to-be-determined biological factors, including differences in many biological and psychosocial variables. Prevalence increases after menopause, equaling that of men.⁹ However, other reports indicate that prevalence in women after menopause slightly exceeds that of men.¹⁰ Factors contributing to SAH in women after age 60 are related to differences in cardiovascular risks and life expectancy between men and women and a possible survival effect in older men. A recent global analysis in 2019, showed that 59% of women and 49% of men with hypertension reported a previous diagnosis, and 47% of women and 38% of men received treatment. The rates of control among those individuals were 23% for women and 18% for men.¹¹

Hypertensive disorders of pregnancy, such as gestational hypertension and preeclampsia, affect up to 10% of all pregnancies. These women have, on average, twice the risk of developing cardiovascular disease later in life compared to women with normotensive

pregnancies. This increased risk may be the result of an underlying predisposition. Women with hypertension during or after pregnancy show more classic cardiovascular risk factors, including chronic hypertension, renal dysfunction, dyslipidemia, diabetes, and subclinical atherosclerosis.¹²

RISK FACTORS FOR THE DEVELOPMENT OF ARTERIAL HYPERTENSION IN WOMEN

Several common factors can contribute to the onset of arterial hypertension in both women and men, such as family history, age, sedentary lifestyle, obesity, high salt intake, stress, alcohol, etc. However, specifically in women, having polycystic ovaries, early menarche, history of contraceptive use, hormonal changes during the menstrual cycle, pregnancy, and menopause can influence the onset of this disease.^{13,14} Additionally, autoimmune, or rheumatic diseases associated with inflammation, endothelial dysfunction, and accelerated atherosclerosis can play a role.¹⁵

HYPERTENSION AS A CARDIOVASCULAR RISK FACTOR IN THE CONTEXT OF GYNECOLOGICAL-OBSTETRIC GLOBAL CARDIOVASCULAR RISK

Arterial hypertension is a well-known risk factor for the development of cerebrovascular disease, cognitive impairment, heart failure, coronary artery disease, chronic kidney disease, and peripheral arterial disease, among others. Therefore, assessing and managing hypertension from the overall cardiovascular risk control perspective is important, considering other risk factors such as diabetes, dyslipidemia, smoking,

Table 1: Factors that increase cardiovascular risk in women at different stages of life.

| Childhood | Adolescence | Pregnancy | Older women |
|------------------------|-------------------------------|--------------------------|-----------------------------|
| Unhealthy diet | Early or late menarche | Gestational diabetes | Menopause |
| Sedentary lifestyle | Polycystic ovary syndrome | Gestational hypertension | Hormone replacement therapy |
| Overweight and obesity | Contraceptives | Preeclampsia | |
| | Premature menopause | Premature birth | |
| | Primary ovarian insufficiency | Fertility therapy | |

sedentary lifestyle, obesity, etc. Additionally, specific risk enhancers should be regarded during the gynecological-obstetric medical history, such as early menarche, contraceptive use, gestational hypertension, and gestational diabetes (Table 1).^{13,14}

CONCLUSION

The prevalence of arterial hypertension in women is lower than in men before menopause, but it becomes equal or even higher after reaching menopause. Given the significant impact of arterial hypertension as a cardiovascular risk factor in women, it is crucial to undergo frequent blood pressure checks, adopt healthy lifestyle habits, and follow medical recommendations to prevent and control arterial hypertension. Additionally, women should receive comprehensive medical care considering their gynecological-obstetric medical history, identifying, and treating autoimmune or rheumatic diseases, investigating their specific needs, and estimating their cardiovascular risk profile. This includes early detection of additional risk factors related to reproductive health, such as early menarche, contraceptive use, gestational hypertension, and gestational diabetes. Addressing these risk factors comprehensively promotes women's cardiovascular health, and potential long-term complications can be prevented.

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