

Hypertension management: Understanding and controlling high blood pressure.

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Introduction

Cardiovascular disease (CVD) remains the leading cause of death among women worldwide, yet it is often under-recognized and under-treated compared to men. Historically, cardiovascular research has focused predominantly on male populations, leading to a gap in understanding how heart disease manifests in women. As our knowledge of gender differences in cardiovascular health expands, it becomes increasingly clear that women experience unique risk factors, symptoms, and treatment responses that necessitate a tailored approach to prevention and care. Women face several cardiovascular risk factors that differ from those of men. Traditional risk factors such as hypertension, high cholesterol, smoking, obesity, and physical inactivity apply to both genders; however, women may be influenced by additional factors, including hormonal changes, pregnancy-related complications, and unique psychosocial elements. Hormonal fluctuations throughout a woman's life can significantly impact cardiovascular health. Estrogen, which has protective cardiovascular effects, declines during menopause, increasing the risk of heart disease. Studies suggest that women who undergo early menopause face a higher risk of developing cardiovascular issues compared to those who transition naturally. Additionally, conditions such as polycystic ovary syndrome (PCOS) can increase the risk of hypertension, diabetes, and dyslipidaemia, all of which contribute to cardiovascular risk. [1,2].

Certain complications during pregnancy can serve as significant predictors of future cardiovascular problems. Conditions such as gestational diabetes, preeclampsia, and gestational hypertension are associated with an increased risk of developing hypertension and cardiovascular disease later in life. Women with a history of these complications should be closely monitored for cardiovascular risk factors as they age. Women may present with different symptoms of heart disease than men. While men typically experience classic symptoms such as chest pain, women are more likely to report atypical symptoms, including fatigue, shortness of breath, nausea, and palpitations. This can lead to underdiagnosis and misdiagnosis of cardiovascular conditions in women, resulting in delayed treatment and poorer outcomes. Psychosocial factors play a crucial role in cardiovascular health, particularly for women. Higher rates of anxiety, depression, and stress among women can contribute to increased cardiovascular risk. Social determinants of health, including socioeconomic status,

education, and access to healthcare, also disproportionately affect women and can exacerbate cardiovascular risk factors. [3,4].

Effective assessment of cardiovascular risk in women requires a comprehensive approach that considers both traditional and gender-specific factors. The American Heart Association (AHA) emphasizes the need for a thorough cardiovascular risk assessment that includes. A family history of cardiovascular disease can indicate a higher risk, especially if first-degree relatives were affected at a young age. A detailed assessment of diet, physical activity, smoking status, and alcohol consumption is essential in understanding individual risk. Evaluation of pre-existing conditions such as hypertension, diabetes, and high cholesterol, as well as any pregnancy-related complications, is crucial. Screening for depression and anxiety is important, as these conditions are linked to poorer cardiovascular outcomes. Regular monitoring of cholesterol levels, blood glucose levels, and other laboratory tests can help identify risk early. Prevention strategies for cardiovascular disease in women must be multifaceted, addressing both lifestyle changes and medical interventions. Adopting a heart-healthy diet rich in fruits, vegetables, whole grains, lean proteins, and healthy fats can significantly reduce cardiovascular risk. The Mediterranean diet, in particular, has been shown to provide cardiovascular benefits. Engaging in regular physical activity—at least 150 minutes of moderate-intensity exercise per week can help maintain a healthy weight, lower blood pressure, and improve lipid profiles. Quitting smoking has immediate and long-term benefits for cardiovascular health. Women who smoke should seek support to quit, as smoking significantly increases the risk of heart disease. Developing effective stress management techniques, such as mindfulness, yoga, and therapy, can reduce cardiovascular risk linked to psychosocial factors. [5,6].

Women should engage in regular health screenings for blood pressure, cholesterol levels, and diabetes to identify and manage risk factors early. For women with elevated risk, medications such as statins for cholesterol management or antihypertensives for high blood pressure may be necessary. The decision to initiate medication should be individualized based on the overall risk profile. Healthcare providers must be aware of gender differences in response to treatments and adjust protocols accordingly. For example, women may have different responses to certain medications compared to men,

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which can affect treatment effectiveness and side effects. Cardiovascular risk among women. Many women remain unaware of their susceptibility to heart disease and the unique risk factors they face. Health education initiatives should focus on informing women about the importance of recognizing symptoms, understanding their personal risk profiles, and advocating for their cardiovascular health. Recognizing the importance of gender-specific research and clinical practices is vital for advancing women's cardiovascular health and ensuring that all individuals receive the care they need to lead healthier lives. [7,8].

Community outreach programs, workshops, and online resources can empower women to engage in preventive measures and encourage them to seek regular check-ups. Additionally, healthcare providers should receive training to recognize and address gender-specific issues in cardiovascular health, ensuring that they are equipped to provide comprehensive care. Implementing lifestyle changes can have a profound impact on cardiovascular risk reduction in women. Studies show that even modest weight loss can significantly lower blood pressure and improve cholesterol levels, directly influencing cardiovascular health. Incorporating physical activity into daily routines can also help mitigate the risk of heart disease; activities such as walking, swimming, or participating in group fitness classes can make exercise more enjoyable and sustainable. Furthermore, engaging in social activities centered around health, such as walking groups or cooking classes focused on healthy eating, can enhance motivation and provide support, making it easier for women to adopt heart-healthy habits. Cardiovascular research must prioritize understanding the nuances of women's heart health. Ongoing studies should focus on exploring the biological, behavioral, and social determinants of cardiovascular disease among women, as well as developing gender-specific guidelines for prevention and treatment. Research should also delve into the long-term effects of pregnancy-related complications on cardiovascular health, the influence of menopause on heart disease progression, and the implications of emerging therapies tailored to women's unique physiological responses. By investing in research that addresses these gaps, we can ensure that women receive optimal care, improve health outcomes, and ultimately reduce the burden of cardiovascular disease among this population. The commitment to advancing our understanding of cardiovascular health in women is essential for achieving health equity and enhancing the quality of life for all women. [9,10].

Conclusion

Cardiovascular risk in women is a multifactorial issue that requires a comprehensive understanding of unique risk factors, symptoms, and treatment responses. As awareness of these differences grows, so too does the need for tailored prevention and treatment strategies that empower women to take control of their cardiovascular health. By addressing both traditional and gender-specific factors, healthcare providers can significantly improve outcomes for women at risk for cardiovascular disease, ultimately reducing the burden of this leading cause of mortality.

References

1. Agarwal R, Weir MR. Blood pressure response with fixed-dose combination therapy: comparing hydrochlorothiazide with amlodipine through individual-level meta-analysis. *J Hypertens*. 2013; 31(8):1692-701.
2. Baguet JP, Robitail S, Boyer L, et al. A meta-analytical approach to the efficacy of antihypertensive drugs in reducing blood pressure. *Am J Cardiovasc Drugs*. 2005; 5:131-40.
3. Etehad D, Emdin CA, Kiran A, et al. Blood pressure lowering for prevention of cardiovascular disease and death: a systematic review and meta-analysis. *Lancet*. 2016; 387(10022):957-67.
4. Gupta AK, Poulter NR, Dobson J, et al. Ethnic differences in blood pressure response to first and second-line antihypertensive therapies in patients randomized in the ASCOT trial. *Am J Hypertens*. 2010; 23(9):1023-1030.
5. Krause T, Lovibond K, Caulfield M, et al. Guideline Development Group. Management of hypertension: summary of NICE guidance. *BMJ*. 2011; 343:d4891.
6. Materson BJ. Variability in response to antihypertensive drugs. *Am J Med*. 2007; 120 (4 Suppl 1):S10-20.
7. Hwang NS, Varghese S, Elisseeff J. Controlled differentiation of stem cells. *Adv Drug Deliv Rev*. 2007;60(2):199-214.
8. Kain K. The birth of cloning: an interview with John Gurdon. *Dis Model Mech*. 2009;2(1-2):9-10.
9. Larijani B, Esfahani EN, Amini P, et al. Stem cell therapy in treatment of different diseases. *Acta Medica Iranica*. 2012;50(2):79-96.
10. Lim WF, Inoue-Yokoo T, Tan KS, et al. Hematopoietic cell differentiation from embryonic and induced pluripotent stem cells. *Stem Cell Res Ther*. 2013;4(3):71.