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The Washington Post article, titled “How sex and gender play a role in heart disease research and treatment,” discusses the genetic and gender-based differences in cardiovascular disease outcomes between men and women. The authors, Amy Huebschmann and Judith Regensteiner, emphasize how genetic factors, such as the presence of two X chromosomes in women versus XY chromosomes in men, significantly influence the development and presentation of heart disease. Women often experience different symptoms than men, such as fatigue and nausea, which can lead to delayed diagnoses. Moreover, implicit gender biases in healthcare worsen the challenges women face in receiving proper care.

The article also highlights that hormonal changes during menopause accelerate cardiovascular risk for women. For instance, postmenopausal women experience a significant increase in cardiovascular disease. Additionally, gaps in medical research, historically focused on male participants, have left holes in knowledge about female-specific cardiovascular needs. The authors advocate for updating medical guidelines to address these disparities, emphasizing that tailored treatment approaches could significantly improve outcomes.

The claims made in the article are strongly supported by the article called Coronary Artery Disease in Women—Review of Risk Factors and Emerging Concepts by Velu et al. This review confirms that gender disparities in cardiovascular research and treatment are well-documented. For instance, it details how ischemia with non-obstructive coronary arteries predominantly affects women and is often misdiagnosed due to atypical symptoms. Additionally, women experience complications with interventions like percutaneous coronary intervention and coronary artery bypass graft surgery more frequently than men. The review underscores the importance of addressing these gaps through gender-specific research and treatment, validating the claims made in the popular press article.

Both the popular press article and the review advocate for a paradigm shift in research and clinical practice. They emphasize the necessity of including more women in clinical trials and tailoring treatment guidelines to account for sex-based physiological and genetic differences. Together, these sources provide a compelling argument for addressing the long-standing disparities in cardiovascular care.

This article relates to genetics by emphasizing how sex chromosomes—two X chromosomes in women versus one X and one Y chromosome in men—affect cardiovascular disease development. These genetic differences influence hormonal regulation, artery structure, and plaque composition, contributing to sex-specific disease presentations and risks. The genetic influence is also evident in how hormonal changes during menopause alter cardiovascular physiology, increasing risk for women. Both articles reinforce that these biological differences are rooted in genetic coding, driving disparities in disease mechanisms, symptoms, and outcomes between men and women.

Works Cited

Huebschmann, A., & Regensteiner, J. (2024, October 20). How sex and gender play a role in heart disease research and treatment. The Washington Post. Retrieved from <https://www.washingtonpost.com/health/2024/10/20/women-heart-disease-stroke-death/>

Velu, D., et al. Coronary Artery Disease in Women—Review of Risk Factors and Emerging Concepts. *Curr. Cardiovasc. Risk Rep.* 18, 25–44 <https://doi.org/10.1007/s12170-023-00734-1> (2024).