

# Incidence of Cardiovascular Disease in Women Affected by Hypertensive Disorders during Pregnancy

### Michael Ceulemans\*

Department of Clinical Pharmacology and Aged Care, University of Sydney School of Medicine, Sydney, Australia

## ABOUT THE STUDY

Cardiovascular Disease (CVD) is a major health concern for women worldwide. In recent years, there has been increasing recognition of the association between Hypertensive Disorders of Pregnancy (HDP) and the development of CVD later in life. HDP affects approximately 10% of pregnancies worldwide and is characterized by high blood pressure, proteinuria, and/or organ dysfunction. The purpose of this article is to explore the relationship between HDP and CVD in women and to discuss the implications of this relationship for clinical practice.

Studies have shown that women with a history of HDP are at increased risk of developing CVD later in life. A meta-analysis of 18 studies found that women with a history of preeclampsia, a severe form of HDP, had a two-fold increased risk of developing CVD compared to women without a history of preeclampsia. Another meta-analysis of 22 studies found that women with a history of any HDP had a 1.6-fold increased risk of developing CVD compared to women without a history of HDP.

The mechanisms underlying the association between HDP and CVD are not fully understood but are thought to involve endothelial dysfunction, inflammation, and oxidative stress. HDP is characterized by endothelial dysfunction, which is believed to be a result of increased oxidative stress and inflammation. This endothelial dysfunction may lead to atherosclerosis and the development of CVD later in life.

Other factors that may contribute to the association between HDP and CVD include insulin resistance, dyslipidemia, and obesity. Women with HDP are at increased risk of developing these metabolic abnormalities, which are also risk factors for CVD.

#### Implications for clinical practice

The association between HDP and CVD has important implications for clinical practice. Women with a history of HDP

should be screened for CVD risk factors, including hypertension, dyslipidemia, and diabetes. They should also be counseled on lifestyle modifications, such as regular exercise, a healthy diet, and smoking cessation, to reduce their risk of developing CVD.

In addition, women with a history of HDP should be monitored for the development of CVD. The American Heart Association recommends that women with a history of preeclampsia undergo CVD risk assessment within 5 to 10 years after delivery. This assessment should include a comprehensive medical history, physical examination, and laboratory testing to assess for CVD risk factors. Women with a history of HDP should also be counseled on the importance of early detection and treatment of CVD. This may include lifestyle modifications, medication, and/or invasive procedures, depending on the severity of their CVD.

Finally, women with a history of HDP should be informed of the potential long-term health consequences of HDP. They should be educated on the signs and symptoms of CVD and encouraged to seek medical attention if they experience any of these symptoms.

## CONCLUSION

Hypertensive disorders of pregnancy are associated with an increased risk of developing cardiovascular disease later in life. The mechanisms underlying this association are not fully understood, but may involve endothelial dysfunction, inflammation, and oxidative stress. Women with a history of HDP should be screened for CVD risk factors and counseled on lifestyle modifications to reduce their risk of developing CVD. They should also be monitored for the development of CVD and educated on the signs and symptoms of this condition. With appropriate screening, monitoring, and management, it may be possible to reduce the burden of CVD in women with a history of HDP.

**Correspondence to:** Michael Ceulemans, Department of Clinical Pharmacology and Aged Care, University of Sydney School of Medicine, Sydney, Australia, E-mail: ceulemansmicheal@msm.au

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