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Cardiovascular Disease Risk Factors after Early-Onset Preeclampsia, Late-Onset Preeclampsia, and Pregnancy-Induced Hypertension

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Abstract

Preeclampsia is a pregnancy complication characterized by high blood pressure and signs of damage to another organ system, most often the liver and kidneys. Preeclampsia usually begins after 20 weeks of pregnancy in women whose blood pressure had been normal. Even a slight rise in blood pressure may be a sign of preeclampsia. Studies have shown an increased lifetime risk of cardiovascular disease (CVD) in women who experienced a hypertensive disorder in pregnancy. This risk is related to the severity of the pregnancy-related hypertensive disease and gestational age at onset. Previous researchers have evaluated postpartum differences in CVD risk factors in 3 subgroups of patients with a history of hypertensive pregnancy. The aim of this research is to determine the cardiovascular disease risk factors after early-onset of preeclampsia, Late-Onset Preeclampsia, and Pregnancy-Induced Hypertension.

The postpartum differences in CVD risk factors were evaluated in 3 subgroups of patients with a history of hypertensive pregnancy. The prevalence of common CVD risk factors postpartum among 448 women with previous early-onset preeclampsia, 76 women with previous late-onset preeclampsia, and 224 women with previous pregnancy-induced hypertension was found. Women with previous early-onset preeclampsia were compared with women with late-onset preeclampsia and pregnancy-induced hypertension and had significantly higher fasting blood glucose (5.29 versus 4.80 and 4.83 mmol/L), insulin (9.12 versus 6.31 and 6.7 uIU/L), triglycerides (1.32 versus 1.02 and 0.97 mmol/L), and total cholesterol (5.14 versus 4.73 and 4.73 mmol/L). Almost half of the early-onset preeclampsia women had developed hypertension, as opposed to 39% and 25% of women in the pregnancy-induced hypertension and late-onset preeclampsia groups, respectively. The data shows the differences in the prevalence of common modifiable CVD risk factors postpartum and suggest that prevention strategies should be stratified according to severity and gestational age of onset for the hypertensive disorders of pregnancy.

Keywords *Preeclampsia, postpartum; gestational age.*