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LONG TERM EFFECTS OF HYPERTENSIVE DISEASE OF PREGNANCY ON VASCULAR FUNCTION

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Abstract:

Hypertensive disease of pregnancy (HDP, - preeclampsia and gestational hypertension), a relatively common pregnancy disorder, is an important cardiovascular disease (CVD) risk factor likely leading to the development of CVD and other diseases in both the mother and baby. In the United States, ≈160,000 pregnancies per year are affected by HDP, implying, ultimately, a substantial increment in the cost of healthcare for these women and their offspring and a consequent reduction in their quality of life. Utilizing pulse wave velocity, to define arterial stiffness, and flow-mediated dilation and passive limb movement, to define endothelial-dependent vascular function, the goal of the study is to determine whether women with a history of recurrent preeclampsia and/or gestational hypertension have an accelerated vascular aging phenotype to shed more light on the pathophysiology of CVD among women who have experienced these forms of HDP. The intent is study 20 exposed women, 10 unexposed women matched for age, and 10 unexposed older women (> 70 yrs). The Utah Population Database (UPDB) was used to identify a cohort of women with (exposed) or without (unexposed) a history of recurrent HDP who delivered their first pregnancy 10-15 years ago. To date 42 women have been identified as exposed women (i.e. including all the HDP), with 10 meeting the eligibility criteria of the study (i.e. experienced preeclampsia or gestational hypertension, but with minimal other comorbidities). Appropriate classification is crucial for this study. Of the 10 eligible women, 4 have responded positively to inclusion in the study and have been consented and the vascular health and function assessments have been scheduled. Recruitment, screening, and, ultimately vascular assessments continue, with the goal to determine if previous HDP causes accelerated vascular aging.