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Hyperemesis Gravidarum: A Novel Risk Factor for Heart Disease?

Women with hyperemesis gravidarum or extreme morning sickness during pregnancy are at higher risk of developing cardiovascular disease (CVD) necessitating hospital admission in the long-term compared to women without hyperemesis, suggests a study of over 1.4 million women from Canada published in the *Journal of the American Heart Association*.[1] Women who had both hyperemesis and preeclampsia had the highest risk.

To investigate the risk of future CVD in women with hyperemesis gravidarum with or without preeclampsia, data of 1,413,166 pregnant women in Quebec between 1989 and 2021 was analysed in this retrospective study. Out of these, 16,288 (1.2%) had hyperemesis gravidarum, 69,645 (4.9%) had preeclampsia, while 1103 (0.08%) had both the conditions during pregnancy.

All women were followed from their first pregnancy up to 3 decades later. The authors found that the incidence of CVD was 17.7 per 100 women among those who had hyperemesis gravidarum only when they were pregnant with adjusted hazard ratio (aHR) of 1.46, 28.2 per 100 women among those with preeclampsia only (aHR 2.58) and 30.9 per 100 women in those with both the conditions (aHR 3.54). Among women who had neither hyperemesis gravidarum or preeclampsia, the incidence of CVD was 14.0 per 100 women.

Women who had both the conditions during pregnancy were 3.5 times more likely to be hospitalized because of cardiac causes with HR of 3.54. The risk of hospitalization was more than doubled among women with preeclampsia with HR of 2.58, whereas in those with hyperemesis only, the HR was 1.46. A strong association with valvular heart disease (HR, 3.38), heart failure (HR 3.43) and cardiomyopathy (HR 4.17) was noted in the group with both hyperemesis gravidarum and preeclampsia.

The study concluded that hyperemesis gravidarum is linked to long-term CVD regardless of presence or absence of preeclampsia. While hyperemesis gravidarum was associated with an increased risk of nonischemic disorders such as heart failure and valve disease, no association was noted for ischemic heart disease such as myocardial infarction, stroke.

Hence, hyperemesis gravidarum may be considered as a novel pregnancy-related risk cardiovascular factor" in cardiovascular guidelines especially for CVD of nonischemic origin, according to the authors. These women, in particular women with coexisting hyperemesis gravidarum and preeclampsia, merit close monitoring over the years to prevent cardiovascular events. They should also be encouraged to lead a heart-friendly lifestyle after childbirth.

REFERENCE

1. Cécile B, Potter BJ, Lewin A, Healy-Profitós J, Brousseau É, Auger N. Risk of cardiovascular disease in women with a history of hyperemesis gravidarum, with and without preeclampsia. J Am Heart Assoc. 2023;12(11):e029298.