

with prior HDP were younger (46.4 +/- 6.5 years) than the normal group (49.1 +/- 5.6 years). Women with prior pregnancy complications were more likely to be obese (35.9% vs. 56.0%, $p=0.001$), to have diabetes (37.9% vs. 14.4%, $p<0.001$) and chronic hypertension (80.0% vs. 42.3%, $p<0.001$). The clinical severity of ACS measured by the Grace score was similar in all 3 groups (72.7 vs. 69.1 vs. 69.6, $p=0.227$ for all comparisons). The occurrence of MACE (8.5% vs. 8.9%, $p=0.919$) was also similar in all groups, with the exception of recurrent ACS, which was more common in women with prior HDP than women with prior normal pregnancy (adjusted hazard ratio 3.21 +/- 1.79 vs. 0.33 +/- 0.21). The association appeared to be mediated by hypertension.

CONCLUSION: Women with prior pregnancy complications have more CVD risk factors at the time of a premature ACS, and are younger at time of event than are women with prior normal pregnancy. Moreover, women with prior preeclampsia are more likely to experience a recurrent ACS at 12 months.

17

EFFECT OF AN INTERVENTION TO IMPROVE THE CARDIOVASCULAR HEALTH OF POSTPARTUM WOMEN WITH A HISTORY OF HYPERTENSIVE DISORDERS OF PREGNANCY

D Younger-Lewis, LA McDonnell, C Westcott, N Elias, S Perron, N Martin, S Ives, AL Pipe, R Reid, K Nerenberg

Ottawa, Ontario

BACKGROUND: Cardiovascular disease (CVD) is the leading cause of death among women worldwide. Women with hypertensive disorders of pregnancy (HDP) represent one of the highest risk populations for premature CVD. Women with preeclampsia have approximately double the risk for subsequent ischemic heart disease and stroke over the 5 to 15 years after pregnancy. In addition, women with HDP have higher rates of chronic hypertension, type 2 diabetes and dyslipidemia by 10 years postpartum. Currently, lifestyle modifications are recommended for these high risk women, however, standard care generally involves little education or counseling on the risks of CVD prevention. To address this gap in care, we assessed the effect of an adapted version of the University of Ottawa Heart Institute's CardioPrevent® program in postpartum women with HDP.

METHODS: The CardioPrevent program provides an evidence-based, tailored primary prevention cardiovascular health program for patients deemed at risk of future CVD. Women with HDP were initially screened by a physician at The Ottawa Hospital Postpartum Vascular Risk Reduction Clinic and then referred to the CardioPrevent Program if deemed eligible. Once enrolled, these women completed a full risk factor screening, receive tailored education and programming supported by behavioural-based counseling, frequent follow-ups, and referral to community resources when required. A total of 23 sessions with a trained health coach occurred over

12 months. The program included feedback about the results of the baseline, 6-month, and 12-month assessments; goal setting; problem solving; skills building; relapse prevention; feedback and reinforcement; and the communication of reports and recommendations to the woman's primary care provider and referring physician.

RESULTS: Thirty-two postpartum women with recent HDP were enrolled in the CardioPrevent program (mean age =35.4 years, 71% married, 90.3% >high school education). Preliminary results indicate a 0.9 unit reduction in total cholesterol/high density lipoprotein ratio ($p=0.015$), a 0.9 mmol/L reduction in total cholesterol ($p=0.026$), a 5.4kg reduction in weight ($p=0.026$), a 6.5cm reduction in waist circumference ($p=0.013$), and a 3.5 unit reduction (5.9 to 2.4) in depression scores ($p=0.033$). The lifetime risk score decreased by 44.9% from baseline to 12 months. The women reported to be strongly satisfied with the program and would recommend it to others.

CONCLUSIONS: Pilot results indicate that the CardioPrevent program provides a valuable CVD prevention strategy for postpartum women, and their providers, with a recent history of HDP. This upstream opportunity for early CVD prevention in this high risk group of women warrants further investigation.

18

IMPACT OF DIGITAL HEALTH METHODS FOR WEIGHT MANAGEMENT ON ATHEROSCLEROTIC CARDIOVASCULAR DISEASE RISK IN "AT-RISK" WOMEN

CA Ball, K Carter, C Yeung, SS Abdelmoneim, J Bauman, R Huang, R Mankad, S Iftikar, S Jain, F Lopez-Jimenez, SL Mulvagh

Rochester, Minnesota

BACKGROUND: The LEARN (Lifestyle-Exercise-Attitudes-Relationships-Nutrition) program is an established weight loss program that may have positive impact on atherosclerotic cardiovascular disease (ASCVD) risk, but can be limited in application due to requirement of weekly meetings. We examine the changes in lipid profiles and 10-year ASCVD risk score in a prospective study of a novel format of the LEARN program utilizing digital health (DH) tools compared to a traditional meeting format.

METHODS: Eighty-nine women (age: 55.5±9.3 years, BMI: 34.3±5.2 kg/m²) with ≥ 2 CVD risk factors were prospectively randomized to a 3-month duration LEARN program delivered either through a DH approach using internet-based podcasts with an online interactive message board and FitBit (San Francisco, CA) activity trackers (DH group), or traditional weekly meetings (Control group=C). Lipids (total cholesterol, LDL, HDL, triglycerides, NMR lipoprofile patterns) were analyzed at baseline and 3 months (LabCorp, Burlington, NC). Statistical analysis was performed (ANOVA and matched pairs).