Incidence of Adverse Pregnancy Outcomes in a Racially Diverse Sample of Obstetric Patients

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Building Interdisciplinary Research Careers in Women's Health

Background and Methods

Background:

- Adverse pregnancy outcomes (APOs) have been shown to increase future cardiovascular risk among women.
- APOs include gestational diabetes, hypertensive disorders, placental abruption, pregnancy loss, preterm birth, and small for gestational age delivery.

Objective:

- To estimate the incidence of APOs in a racially diverse obstetric sample. This data would help establish the importance of developing strategies for risk assessment to guide disease prevention interventions.

Study design:

- Prospective observational cohort study

Enrollment & study procedures:

- We enrolled 100 consecutive pregnant and postpartum (up to 12 months) women in a prospective cohort study between October 2021 and October 2022.
- Medical history of APOs was assessed at multiple time points (**Figure 1**) via questionnaires completed by study participants and electronic medical record review.

Summary of Study Design and Results

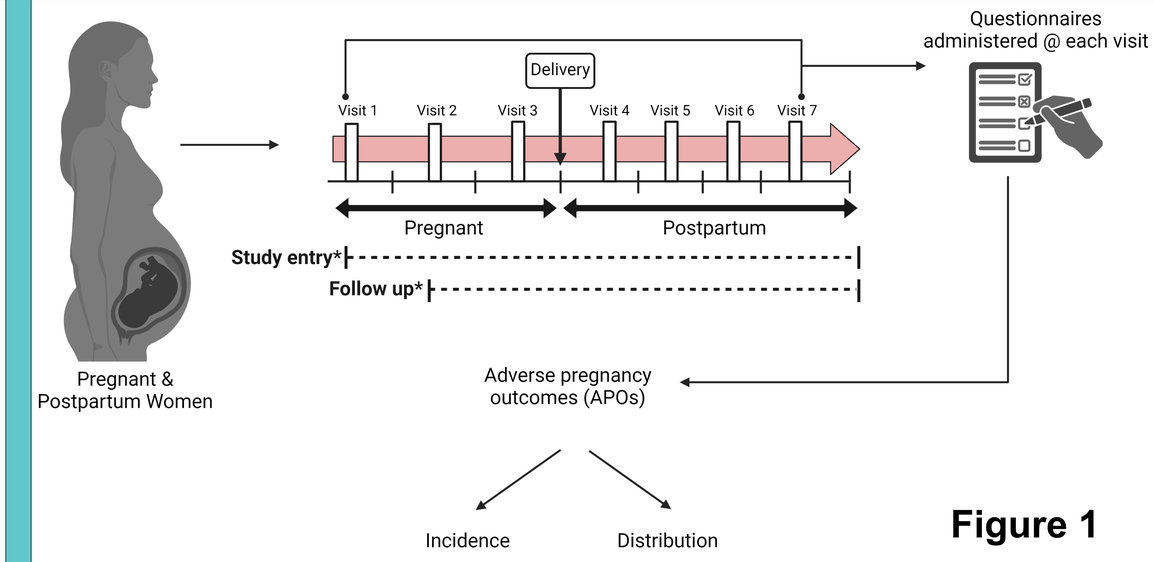

Figure 1

Description of study sample:

- The median age of participants was 31 years, 38%, identified as Non-Hispanic (NH) White, 32% as NH Black, and 21% as Hispanic. The median number of follow up visits was 2 (range: 1, 4).

Adverse Pregnancy Outcomes (APOs) at Study Entry

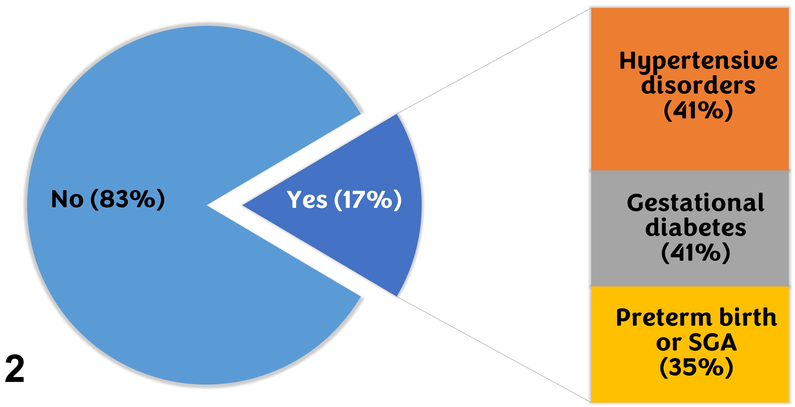

Figure 2

Additional Results

- At study entry (cross-sectional time point):
  - APO incidence rate was 17% (95% CI: 10% to 26%) related to the index pregnancy.
  - Non-Hispanic Black women had a higher reported incidence of APO's (22%) compared to other race groups (Non-Hispanic White – 16%, Hispanic – 14%), p=0.017 (Fisher's Exact test).
- The occurrence of APO's increased to 27% (95% CI: 19% to 37%) by the end of the study.
- Twenty-four percent of the cohort also reported other complications (5% were APOs in a prior pregnancy and 10% were cardiovascular conditions).

Conclusion

- We observed the incidence of APOs to be greater than 1 in 4 with higher rates when accounting for prior pregnancies.
- Repeat assessments of APOs in the postpartum period may allow for improved identification of women at risk and targeted risk modification interventions to disrupt the progression from APO to overt cardiovascular disease.

This study was funded by a research grant from the Miami Heart Research Institute, Florida Heart Foundation and supported by the Mayo Clinic Women's Health Research Center and the Mayo Clinic Building Interdisciplinary Research Careers in Women's Health (BIRCWH) Program funded by the National Institutes of Health (K12 AR084222)