Title

Frequency of preeclampsia spectrum disorders by diabetes subgroup

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vs 0 [-1, 0], respectively, p=0.04). After controlling for arm, those with preterm deliveries or who were on anti-hypertensives were more likely to see themselves as high risk compared to those with term deliveries or who did not need medications, respectively.

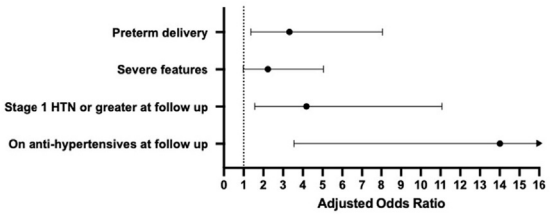
CONCLUSION: Risk perception for future HTN in individuals with HDP is high overall. It is affected by factors such as disease severity and anti-hypertensive use and may be higher following participation in postpartum interventions. Understanding factors that influence risk perception following HDP may lead to more informed counseling and the adoption of programs which modify risk perception and mitigate future CVD risk.

Table 1. Demographic, clinical characteristics and outcomes

N (%), mean ± SD or median [IQR]	Control N=51	HPBM N=49	HPBM +HHFNM N=48	p value
Baseline demographics				
Age, years	29.7 (5.0)	30.7 (5.2)	32.1 (5.1)	0.02
Self-reported race				
White	34 (67%)	34 (69%)	39 (81%)	0.10
Black	14 (27%)	13 (27%)	8 (17%)	
Other (Asian, American Indian)	3 (6%)	2 (4%)	1 (2%)	
Pre-pregnancy BMI, kg/m^2	33.2 (7.1)	32.0 (6.2)	32.0 (5.8)	0.35
Health insurance type				
Private / commercial insurance	34 (69%)	31 (67%)	30 (64%)	0.57
Public insurance	21 (39%)	22 (29%)		
Primiparous	32 (64%)	24 (52%)	24 (52%)	0.24
Level of education				
High school or less than high school	14 (28%)	8 (17%)	11 (23%)	0.635
Some college or technical	11 (22%)	15 (33%)	11 (23%)	
4-year college degree or higher	25 (50%)	23 (50%)	25 (53%)	
Pregnancy and delivery				
Pregnancy diagnosis				
Gestational hypertension	21 (41%)	11 (22%)	23 (48%)	0.49
Preeclampsia without severe features	11 (22%)	15 (31%)	10 (21%)	
Pre-eclampsia with severe features	19 (37%)	23 (47%)	15 (31%)	
Preterm delivery	10 (20%)	15 (31%)	11 (23%)	0.77
On anti-hypertensive medication at initial visit	14 (27%)	11 (22%)	12 (25%)	
Risk perception by study intervention*				
Risk perception (initial)	4 [3, 5]	4 [3, 4]	4 [3, 4]	0.21
Risk perception (final)	4 [3.5, 4]	4 [3, 5]	4 [4, 5]	0.75
Risk perception change	0 [-1, 0]	0 [0, 1]	0 [0, 1]	0.04
Modified risk perception (initial)	4 [3, 4]	4 [3, 5]	4 [4, 5]	0.41
Modified risk perception (final)	4 [3, 5]	4 [3, 5]	4 [3, 5]	0.78
Modified risk perception (change)	0 [-1, 1]	0 [-1, 1]	0 [-1, 1]	0.66

*Questions adapted from Kim and Walker's validated survey of chronic diabetes risk in those with gestational diabetes (scale 1-5; higher values indicating higher risk perception).

Figure 1. Adjusted odds ratios and 95%CI for high-risk perception (score>4) at follow up (one-year postpartum). Models adjusted for randomization arm.



808 Frequency of preeclampsia spectrum disorders by diabetes subgroup

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OBJECTIVE: We aim to determine the frequency of preeclampsia (PE) spectrum disorders among subjects with diabetes by subtype: Type 1 diabetes mellitus (T1DM); Type 2 DM (T2DM); gestational diabetes diet controlled (A1GDM); medication controlled GDM (A2GDM); and hyperglycemia in early pregnancy. We hypothesized a higher rate of PE with severe features among those with T1DM and T2DM.

STUDY DESIGN: This was a retrospective cohort study of gravidas with adjudicated DM and PE diagnoses who delivered between 2010-2021. Hyperglycemia in early pregnancy was defined as a first trimester hemoglobin A1c between 5.7-6.4% or a fasting glucose of 92-125 mg/dL. Rates of gestational hypertension (HTN) and PE with or without severe features were analyzed. Superimposed PE was analyzed separately. Eclampsia and HELLP were included within PE with severe features. Student's t-test and Chi-square analyses were performed. Logistic regression was performed to control for baseline differences between groups.

RESULTS: 1151 subjects with DM were included in the analysis: 97 T1DM, 323 T2DM, 128 A1GDM, 155 A2GDM, and 448 early gestational hyperglycemia. First trimester body mass index was significantly higher in the T2DM and A2GDM groups (P< .001), while chronic HTN was more frequent in the T1DM and T2DM groups (p=.001) (Table 1). There were differences between age, parity, and race among DM subgroups; only race and parity differed by PE outcome. Excluding those with underlying chronic HTN, the rate of PE with and without severe features was highest in T1DM (25.0%, 18.8%) and T2DM (24.2%, 14.1%) (Table 2). T1DM and T2DM remained independent risk factors for PE without severe features (aOR 6.9, 95% CI 1.97-24.0; aOR 3.68, 95% CI 1.21-11.23) after controlling for parity and race. A sub-analysis among subjects with chronic HTN was performed: superimposed PE was most common in T1DM (17/33, 51.5%), T2DM (68/125, 54.4%) and A1GDM (15/29, 51.7%)(p=0.01).

CONCLUSION: The frequency of PE differed between DM subgroups. Those with pregestational DM are most likely to develop PE spectrum disorders and warrant close surveillance.

Table 1: Maternal characteristics and select outcomes.

	Type 1 DM N=97	Type 2 DM N=323	A1GDM N= 128	A2GDM N=155	Early Gestational Hyperglycemia N=448	P Value
Age (years)	30.6 ± 5.9	31.7 ± 6.0	32.6 ± 6.1	33.6 ± 5.4	32.8 ± 5.2	<.001
Parous	43 (44.3)	220 (68.1)	71 (55.5)	108 (69.7)	279 (62.3)	<.001
Race/Ethnicity[a]						
Hispanic	20 (24.7)	188 (67.4)	48 (44.4)	77 (56.6)	129 (35.9)	<.001
Non-Hispanic White	51 (63.0)	20 (7.2)	32 (29.6)	28 (20.6)	133 (37.0)	
None-Hispanic Black	4 (4.9)	16 (5.7)	7 (6.5)	9 (6.6)	23 (6.4)	
Asian	3 (3.7)	24 (8.6)	18 (16.7)	11 (8.1)	53 (14.8)	
Other	3 (3.7)	31 (11.1)	3 (0.3)	11 (8.1)	21 (5.8)	
First Trimester BMI (kg/m^2)[a]	25.9 ± 4.2	35.0 ± 7.9	28.0 ± 7.5	35.5 ± 11.4	30.2 ± 9.5	<.001
Chronic HTN	33 (34.0)	125 (38.7)	29 (22.7)	43 (27.7)	120 (26.8)	.001
GA at Delivery (weeks)	36.7 ± 2.8	36.9 ± 3.0	36.4 ± 4.1	37.5 ± 2.8	38.2 ± 2.7	<.001
Birthweight (grams)	3267 ± 884	3157 ± 884	2755 ± 944	3131 ± 796	3206 ± 721	<.001
Delivery Mode[a]						
Vaginal	27 (31.8)	97 (36.5)	57 (50.9)	51 (39.2)	244 (59.1)	<.001
Cesarean	58 (68.2)	169 (63.5)	55 (49.1)	79 (60.8)	169 (40.9)	

Age, BMI, GA at Delivery and Birthweight are reported as mean ± standard deviation. Parous, race, ethnicity, delivery mode and 5 minute APGAR < 7 are reported as N (%). [a]Unknown values not included in analysis. BMI: body mass index, GA: gestational age, HTN: hypertension, DM: diabetes mellitus, GDM: gestational diabetes mellitus.

Table 2: Frequency of preeclampsia spectrum disorders by diabetes subgroup.

	No preeclampsia	Gestational hypertension	Preeclampsia without severe features	Preeclampsia with severe features[a]	P Value
T1DM (N=64)	34 (53.1)	2 (3.1)	12 (18.8)	16 (25.0)	<.001
T2DM (N=198)	115 (58.1)	7 (3.5)	28 (14.1)	48 (24.2)	
A1GDM (N=99)	72 (72.7)	1 (1.0)	5 (5.1)	21 (21.2)	
A2GDM (N=112)	80 (71.4)	3 (2.7)	8 (7.1)	21 (18.8)	
Early Gestational Hyperglycemia (N=328)	265 (80.8)	2 (0.6)	23 (7.0)	38 (11.6)	

All variables are reported as N (%). Subjects with chronic HTN were analyzed separately. [a]Preeclampsia with severe features includes eclampsia and HELLP syndrome (hemolysis, elevated liver enzymes and low platelets). T1DM: type 1 diabetes mellitus, A1c: first trimester hemoglobin A1c, T2DM: type 2 diabetes mellitus, A1GDM: diet controlled gestational diabetes mellitus, A2GDM: medication controlled gestational diabetes mellitus, DM: diabetes mellitus.