

Polyendocrine Metabolic Ovarian Syndrome and the Entire Spectrum of Gestational Dysglycemia: A Population-Based Cohort Study

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INTRODUCTION

PMOS is a well-established risk factor for GDM. While GDM is the main recognized entity of gestational dysglycemia, milder abnormal glucose levels are also linked to adverse maternal and offspring metabolic outcomes. However, data on the full spectrum of gestational dysglycemia among women with PMOS remain limited.

OBJECTIVES

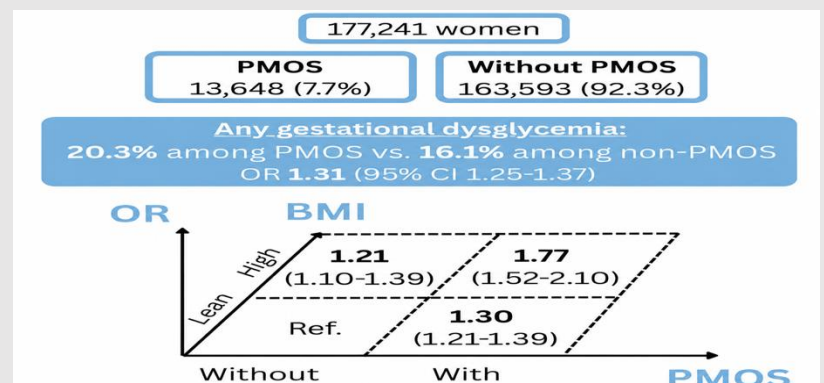
To assess the association between PMOS and the full spectrum of gestational dysglycemia in a large population-based cohort.

METHODS

- Included were women who underwent a pre-recruitment medical evaluation during adolescence and subsequently underwent gestational diabetes screening at 24–28 weeks of gestation.
- Data from the national Israeli conscription database were linked to Maccabi Healthcare Services.
- PMOS was defined based on physician diagnosis.
- Gestational glycemic status was classified as abnormal GCT with normal OGTT, GIGT, or GDM
- logistic regression models were applied.

RESULTS

- Women with PMOS had higher rates of abnormal GCT with normal OGTT, GIGT, GDM, and any dysglycemia.
- Women with both high BMI and PMOS had higher odds of any gestational dysglycemia.



Dysglycemia categories		PMOS	Without PMOS	Odds Ratios for glucose intolerance in pregnancy (95% CI)*	
		no. of cases/total no. of participants			
Abnormal GCT with normal OGTT	unadjusted	1,293/13,648	12,893/163,593	1.21	(1.14, 1.29)
	adjusted	1,235/13,522	12,770/161,630	1.18	(1.11, 1.26)
Gestational IGT	unadjusted	667/13,648	6,566/163,593	1.28	(1.18, 1.39)
	adjusted	663/13,522	6,502/161,630	1.26	(1.16, 1.37)
Gestational diabetes	unadjusted	864/13,648	6,944/163,593	1.57	(1.46, 1.69)
	adjusted	864/13,522	6,866/161,630	1.61	(1.49, 1.73)
Any dysglycemia	unadjusted	2,824/13,648	25,492/163,593	1.32	(1.27, 1.38)
	adjusted	2,762/13,522	26,138/161,630	1.31	(1.25, 1.37)

1 1.2 1.4 1.6 1.8 2

More likely in PMOS vs. without PMOS

CONCLUSIONS

Women with PMOS, and particularly those with concomitantly high BMI, constitute a high-risk subgroup for subthreshold gestational dysglycemia and GDM, highlighting the importance of pre-pregnancy mitigation of modifiable risk factors, such as high BMI.