Neonatal Outcome in Obese Hypertensive Mothers versus Obese Normotensive Mothers: A Comparative Study from the State of Qatar

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Background and Aims

Obesity associated with hypertension during pregnancy is not uncommon, and the effect of these combined morbidities on neonatal outcomes may vary among different populations.

Method

We conducted a retrospective analysis using data from the PEARL-Peristat Study, Qatar to evaluate neonatal outcomes of obese pregnant women with hypertension compared to obese women without hypertension (ONH). Obesity was defined as BMI ≥30 kg/m2. Hypertension was based on the revised ISSHP classification into: Essential hypertension (EH), Gestational hypertension (PIH) and pre-eclampsia /eclampsia(PEH).

Results

Of the 1627 obese women with singleton deliveries in 2017, 33 (2.0%) had EH, 40 (2.5%) had PIH and 30 (1.8%) had PEH, with a combined prevalence of 6.3%. Obese hypertensive mothers had higher prevalence of diabetes compared to ONH mothers, p= 0.026. More obese hypertensive women delivered by C-section than women in the ONH group, p <0.001. Premature delivery was significantly higher in obese EH (21.2%), PIH (15.0%) and PEH (30.0%) women versus ONH women (8.1%) (p <0.001) and their newborns required more NICU admission as compared to newborns of ONH women p =0.003. Neonatal Respiratory distress was commoner in EH (21.2%), PIH (7.5%) and PEH (13.3%) obese mothers compared to ONH mothers (6%) p=0.002. Neonatal Macrosomia was more frequent in ONH women (7.6%) compared to obese EH, PIH and PEH women (0.0%, 2.5% and 6.7% respectively), the reverse being true for Low Birth Weight (LBW).

Conclusion

Neonates of obese hypertensive mothers face an increased risk of respiratory distress, LBW, prematurity and NICU admissions compared to newborns of obese normotensive women.

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