Effects of Different Forms of Maternal Hypertension During Pregnancy On Neonatal Outcomes

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Background and Aims

Hypertension in pregnancy is not uncommon, and its neonatal outcomes are variable among different populations.

Method

We conducted a research using data from the birth registry obtained from our Maternity hospital in Qatar to evaluate neonatal outcomes of pregnant women with hypertension. Hypertension was defined based on ISSHP into: Essential hypertension (EH), Gestational hypertension (GH) and Pre-eclampsia / eclampsia (PEH).

Results

Of the 14011 pregnant women screened during 2017 with singleton delivery, 181 had PEH (1.3%), 253 had GH (1.8%) and 117 had (0.8%) EH with total prevalence of hypertension being 3.9%. Women with dysglycemia showed higher prevalence of essential hypertension compared to their normoglycemic counterparts ($p < 0.001$). All the three forms of hypertension, had higher rates of C-section delivery compared to the normotensive group $p < 0.001$. The incidence of LBW (<2500 grams) term babies was higher in women with hypertension (PEH 14.4%, GH 8%, EH 6.4%) compared to 3% among normotensive women ($p < 0.001$). Premature delivery was significantly more in PEH, GH and EH (38.7%, 20.6% and 19.7% respectively) compared to control (6.6%). Newborns of women with PEH, GH and EH were more likely to need NICU admission (40.6%, 27.9% and 21.6 % respectively) compared to normotensive group (12.7%) $p < 0.001$. Respiratory distress and low Apgar score was commoner in newborns of hypertensive mothers (p value < 0.001 and 0.002 respectively). Still birth and neonatal mortality did not differ.

Conclusion

Maternal hypertension is an important cause of neonatal morbidity including higher frequency of respiratory distress, LBW, low Apgar score, prematurity and NICU admissions.