

An analysis of the perinatal outcomes in multiparous women with hypertensive disorders of pregnancy – A comparison of recurrent and new-onset disease

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Introduction

- Hypertensive disorders of pregnancy (HDP) were typically thought to be primarily associated with primiparous women
- Nowadays there is a rising prevalence of HDP in multiparous women
- Multiparous women who develop HDP may have had HDP in prior pregnancies (recurrent) or never had it before – new-onset disease
- Studies suggest that recurrent HDP have worse perinatal outcomes, such as early-onset disease, preterm birth and fetal loss^{1,2}

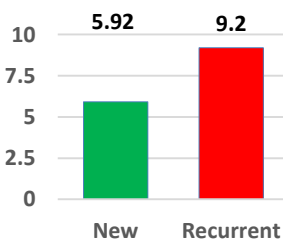
Method

- A retrospective analysis at Lyell McEwin hospital, a tertiary metropolitan hospital in the Northern suburbs of Adelaide
- Included all multiparous women diagnosed with HDP and delivered in 2013 – 2014
- Data regarding maternal demographics, antenatal events and perinatal outcomes was obtained from clinical records
- Univariate analysis performed via SSPS software

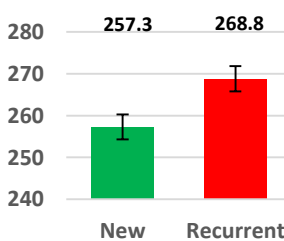
Results

- Total of 4,198 multiparous births during study period, including 119 women with new-onset HDP (2.8% incidence) and 98 with recurrent disease (2.3%)
- The mean gestational age for diagnosis was 261.7 (± 19.4) days for new-onset compared to 259.6 (± 15.3) days in recurrent group ($P = 0.4$)
- New-onset HDP had faster diagnosis-to-delivery time (5.95 vs. 9.2 days, $P < 0.05$)
- No statistically significant difference was found for laboratory values, severe pre-eclampsia/eclampsia, complications, treatment and mode of delivery
- New-onset HDP was more likely to contribute preterm births (Odds ratio 2.25, 95% Confidence interval 1.06–4.74, $P < 0.05$)
- Infants of new-onset HDP delivered 11 days earlier (8.3–14.8 days, $P < 0.0001$), were smaller (3264grams vs. 3440g, $P < 0.05$) and hospitalised longer (9.7 vs 7.6 days, $P < 0.05$)

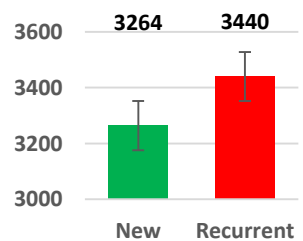
Average Diagnosis-to-Delivery Time (days)



Average GA at Delivery (days)



Average Birthweight (grams)



Conclusion

- Our results demonstrated that multiparas with new-onset HDP were more likely to deliver earlier with a shorter diagnosis-to-delivery interval, suggesting more aggressive disease
- The neonates of new-onset group had poorer outcomes due to higher risks of prematurity, being smaller and admitted to nursery for longer
- In conclusion, women with new-onset HDP may be managed the same antenatally but are at risk of worse neonatal outcomes

References

- Jian-Ying Y, Xia X. Perinatal outcome of pre-eclampsia in parous women. *J Obstet Gynaecol.* 2013;33(6):578-80.
- Mendilcioglu I et al. Recurrent preeclampsia and perinatal outcome: a study of women with recurrent preeclampsia compared with women with preeclampsia who remained normotensive during their prior pregnancies. *Acta Obstet Gynecol Scand* 2004;83:1044-1048.