

In women with late preterm mild hypertensive disorders, does immediate delivery versus expectant management differ in terms of neonatal neurodevelopmental outcomes?

Yes. For women with late preterm (34–37 weeks) mild hypertensive disorders in pregnancy, immediate delivery resulted in poorer neurodevelopmental outcomes in offspring at 2 years when compared with expectant management. In this follow-up study of 342 women enrolled in the HYPITAT-II trial, expectant management until clinical deterioration or term is reached maximized childhood outcomes at age 2.

Zwertbroek EF, Franssen MT, Broekhuijsen K, et al; HYPITAT-II Study Group. Neonatal developmental and behavioral outcomes of immediate delivery versus expectant monitoring of mild hypertensive disorders of pregnancy: 2-year outcomes of the HYPITAT-II trial. Am J Obstet Gynecol. doi:10.1016/j.ajog.2019.03.024.

EXPERT COMMENTARY

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In women with mild hypertensive disorders in the preterm period, the maternal benefits of delivery should be weighed against the consequences of preterm birth for the neonate. In a recent study, Zwertbroek and colleagues sought to evaluate the long-term

The authors report no financial relationships related to this article.

neurodevelopmental effects of this decision on the offspring.

Details of the study

The authors conducted a follow-up study of the randomized, controlled Hypertension and Preeclampsia Intervention Trial At Term II (HYPITAT-II), in which 704 women diagnosed with late preterm (34–37 weeks) hypertensive disorders in pregnancy (gestational hypertension, chronic hypertension, or mild preeclampsia) were randomly assigned to immediate delivery or expectant management.

Expectant management consisted of close monitoring until 37 weeks or until an indication for delivery occurred, whichever came first. Children born to those mothers were eligible for this study (women enrolled during 2011–2015) when they reached 2 years of age; 342 children were included in this analysis. Of note, children from the expectant management group had been delivered at a more advanced gestational age (median,

FAST TRACK

Study investigators found more abnormal scores on the Ages and Stages Questionnaire for children whose mothers underwent immediate delivery (28% vs 18%)

37.0 vs 36.1 weeks; $P < .001$) than those in the immediate-delivery group.

Survey tools. Parents completed 2 response surveys, the Ages and Stages Questionnaire (ASQ) and the Child Behavior Checklist (CBCL), between 23 and 26 months' corrected age. The ASQ is designed to detect developmental delay, while the CBCL assesses behavioral and emotional problems. The primary outcome was an abnormal result on either screen.

Results. Based on 330 returned questionnaires, the authors found more abnormal ASQ scores (45 of 162 [28%] vs 27 of 148 [18%] children; $P = .045$) in the immediate-delivery group versus the expectant management group, most pronounced in the fine motor domain. They found no difference in the CBCL scores. The authors concluded that immediate delivery for women with late preterm mild hypertensive disorders in pregnancy increases the risk of developmental delay in the children.

WHAT THIS EVIDENCE MEANS FOR PRACTICE

This follow-up study of the HYPITAT-II randomized, controlled trial demonstrates poorer neurodevelopmental outcomes in offspring of late preterm mild hypertensives who undergo immediate delivery. These data support current practice recommendations to expectantly manage women with late preterm mild hypertensive disease until 37 weeks or signs of clinical worsening, whichever comes first.

Study strengths and limitations

This study is unique as a planned follow-up to a randomized, controlled trial, allowing for 2-year outcomes to be assessed on children of enrolled women with mild hypertensive disorders in the late preterm period. The authors used validated surveys that are known to predict long-term neurodevelopmental outcomes.

This work has several limitations, however. Randomization was not truly maintained given the less than 50% response rate of original participants. Additionally, parents completed the surveys and provider confirmation of developmental concerns or diagnoses was not obtained. Further, assessments at 2 years of age may be too early to detect subtle differences, with evaluations at 5 years more predictive of long-term outcomes; the authors stated that these data already are being collected.

Finally, while these data importantly reinforce the conclusions of the parent HYPITAT-II trial, which support expectant management for mild hypertensive disorders in the late preterm period,¹ clinicians must always take care to individualize decisions in the face of worsening maternal disease. ●

Reference

1. Broekhuijsen K, van Baaren GJ, van Pampus MG, et al; HYPITAT-II Study Group. Immediate delivery versus expectant monitoring for hypertensive disorders of pregnancy between 34 and 37 weeks of gestation (HYPITAT-II): an open-label, randomised controlled trial. *Lancet*. 2015;385:2492-2501.