Current management of Hypertensive Disorders of Pregnancy (HDPs)

Introduction: Between 2 and 8% of pregnancies are complicated by preeclampsia (PE) defined as specified in table 1(1). At present, the only ultimate “cure” of PE and other forms of HDPs is removal of the placenta and thus, delivery. As the clinician provides “combined care” to 2 risk patients, treatment focuses on prevention of both maternal and fetal morbidity. In ≈1/3 of cases the dilemma arises that the prematurity risk outweighs maternal risks of ongoing HDP pregnancy. In ≈2/3 of cases, HDP symptoms develop >36 weeks with acceptable prematurity risks for the infant. However, at this later gestational age maternal risks are not lower! Most maternal deaths occur in the last half of pregnancy, even though the incidence of maternal death is 20-fold higher in early-onset PE. The latter is related to the much higher incidence of severe disease in early-onset PE. In developed countries PE accounts for ≈19% of maternal deaths (2).

Acute treatment: Severe HDP ought to be treated by a multidisciplinary team (obstetrician, neonatologist, and anesthesiologist). Initially, prompt stabilization by controlling blood pressure along with MgSO4 administration to prevent eclampsia is of utmost importance. In most cases intravenous administration of antihypertensives is needed. After reaching a clinically stable maternal condition, the clinician has to decide how and when to deliver the infant (2).

Temporalizing management or not: In severe HDP temporizing management is only recommended after the 24th week. The best management of severe HDP between 28 and 34 weeks is still open to debate. After 34 weeks it is generally accepted to deliver women with severe HDP shortly after maternal stabilization. Between 34 and 37 weeks, temporizing management of mild HDP may be especially beneficial for the fetus (3). After 37 weeks induction of labor or elective cesarean section is strongly recommended (4). In the decision whether or not to prolong pregnancy, evaluation by a risk score may help to decide. The so-called “full-Piers” model gives some important clues for pending morbidity (5).

Biography
Johannes J. (Hans) Duvekot is a consultant in obstetrics and perinatology at the Erasmus MC, University Medical Center in Rotterdam, the Netherlands. In his clinical career, which started in 1984, he dedicated himself to the study of maternal hemodynamics and related disturbances like preeclampsia. During his residency at the University Hospital of Maastricht, he wrote his thesis on early changes in maternal hemodynamics and volume homeostasis. He participated in the Magpie trial that formed a milestone in prevention of eclampsia. Since 2003 he is working at the Erasmus MC in Rotterdam, where he is involved in clinical studies on preeclampsia and the long-term effects of this disease on women. He published over 150 scientific articles and over 15 book chapters.

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