

Hypertensive Disorders in Pregnancy



Amelia L.M. Sutton, MD, PhD*, Lorie M. Harper, MD, MSCI, Alan T.N. Tita, MD, PhD

KEYWORDS

• Chronic hypertension • Gestational hypertension • Preeclampsia • Eclampsia

KEY POINTS

- Hypertensive disorders of pregnancy result in a substantial health burden, accounting for a large proportion of maternal and neonatal morbidity and mortality.
- The diagnostic criteria and classification of preeclampsia have been updated to reflect current understanding of the disease.
- Select candidates with preterm preeclampsia with severe features can be expectantly managed to decrease the risks of iatrogenic prematurity.
- Strategies to prevent preeclampsia include identification of high-risk patients and initiation of low-dose aspirin in early gestation.
- Substantial gaps in knowledge remain, including the goal blood pressures for women with chronic hypertension.

INTRODUCTION

Hypertensive disorders affect as many as 10% of all pregnancies worldwide.¹ This heterogeneous group of disorders includes chronic hypertension, gestational hypertension, preeclampsia, and preeclampsia superimposed on chronic hypertension. These disorders account for a significant proportion of perinatal morbidity and mortality. Hypertensive disorders feature among the top 6 causes of maternal mortality in the United States and are responsible for nearly 10% of all maternal deaths.² The incidence of preeclampsia has risen dramatically over the past few decades.^{3,4} The incidence of early-onset preeclampsia, which accounts for a disproportionate degree of maternal and neonatal morbidity and mortality, has increased by greater than 140%.⁵ Given the substantial health burden of hypertensive disorders in pregnancy, there is increasing interest in optimizing management of these conditions. This article summarizes the diagnosis and management of

Disclosure: The authors report no conflict of interest.

Department of Obstetrics and Gynecology, Division of Maternal-Fetal Medicine, University of Alabama at Birmingham, Women and Infants Center, 1700 6th Avenue South, Birmingham, AL 35249, USA

* Corresponding author.

E-mail address: alsutton@uabmc.edu

Obstet Gynecol Clin N Am 45 (2018) 333–347

<https://doi.org/10.1016/j.ogc.2018.01.012>

0889-8545/18/© 2018 Elsevier Inc. All rights reserved.

obgyn.theclinics.com

each of the disorders in the spectrum of hypertension in pregnancy and highlights recent updates in the field.

CHRONIC HYPERTENSION

Definition and Epidemiology

Hypertension is defined as either a systolic blood pressure (SBP) of 140 mm Hg or higher, a diastolic BP (DBP) of 90 mm Hg or higher, or both.⁶ Chronic hypertension, by definition, is diagnosed before pregnancy or before 20 weeks' gestation and persisting after delivery.⁶ Chronic hypertension is further classified as mild-to-moderate (SBP 140–159 mm Hg and/or DBP 90–109 mm Hg) or severe (SBP \geq 160 mm Hg and/or DBP \geq 110 mm Hg).¹ As many as 5% of pregnant women have chronic hypertension. Most of these patients will have essential hypertension but as many as 10% have secondary hypertension, with underlying endocrine or renal causes.¹ Older age at child birth and prevalence of obesity contribute to a rising prevalence of chronic hypertension during pregnancy.^{3,4}

Diagnosis

Chronic hypertension is most easily diagnosed in a woman with documented prepregnancy hypertension, especially if she is already receiving antihypertensive therapy.¹ Hypertension arising in the first trimester is most likely chronic hypertension. However, a diagnostic dilemma arises in women with late prenatal care who may be normotensive during the typical nadir in the second trimester and then become hypertensive in the late second or third trimester. It is challenging to distinguish chronic hypertension from gestational hypertension and, often, preeclampsia during the pregnancy. If hypertension persists after the postpartum period (6–12 weeks), then chronic hypertension is the retrospective diagnosis. Additionally, many women with well-documented preexisting hypertension may remain normotensive without therapy throughout pregnancy.

Complications

Chronic hypertension is associated with poor outcomes in both pregnant and nonpregnant women.⁶ Some complications that can occur both during and outside of pregnancy include renal failure, stroke, respiratory failure, and death.⁶ However, the most significant complication of chronic hypertension is the development of superimposed preeclampsia, which develops in 20% to 40% of women with chronic hypertension.^{7,8} Maternal morbidity and mortality rates are higher in patients with superimposed preeclampsia compared with women with preeclampsia in the absence of preexisting hypertension.⁹ Similarly, chronic hypertension poses substantial risks to the fetus, including miscarriage, abruption, small-for-gestational age, preterm birth, and perinatal death. The perinatal mortality rate is higher in patients with superimposed preeclampsia compared with women with preeclampsia in women without chronic hypertension.¹⁰

Management

Women with chronic hypertension should be evaluated for evidence of end-organ damage, including a baseline serum creatinine, urine protein quantitation, and electrocardiogram. A recent study suggested that even high normal values of serum creatinine (\geq 0.75 mg/dL) and proteinuria (protein/creatinine ratio \geq 0.12) before 20 weeks' gestation are associated with an increased risk of developing preeclampsia with and without severe features.¹¹ If the hypertension is severe and/or long-standing, further cardiac evaluation, including an echocardiogram, may be

Download English Version:

<https://daneshyari.com/en/article/8783591>

Download Persian Version:

<https://daneshyari.com/article/8783591>

[Daneshyari.com](https://daneshyari.com)