

Gestational hypertension & pre-eclampsia

Introduction

- First, we talk about the definitions
- When, how, why the disease occurs?
- How diagnose, how to treat and how to prevent according to guidelines
- This lecture is to know about the disease in new way.

Background : Prompt identification and appropriate management of Hypertensive Disorders in Pregnancy (HDP) are essential for optimal outcomes because HDP:

- Are associated with severe maternal obstetric complications and increased maternal mortality risk
- Lead to preterm delivery, fetal intrauterine growth restriction, low birthweight and perinatal death

Study made between 2006 and 2008 showed: 70 maternal deaths, showing leading causes of death to be: hypertension (20%), haemorrhage (19%) and embolism (17%). Chronic illness, obesity and prenatal risk factors were identified as important circumstances in the cases reviewed.

Definition and classification of Hypertensive Disorders in Pregnancy (HDP)

Hypertensive Disorders in Pregnancy are comprised of a spectrum of disorders typically classified into categories and stratified according to severity: chronic (pre-existing) hypertension, gestational hypertension, preeclampsia (including chronic (pre-existing) hypertension with superimposed preeclampsia) and eclampsia. These classifications promote accurate, effective communication among health care providers and form the basis of management recommendations.

The spectrum of hypertension and preeclampsia:

Hypertension in pregnancy

Hypertension in pregnancy is defined as a systolic blood pressure ≥ 140 mm Hg OR diastolic blood pressure ≥ 90 mm Hg or both. Both systolic and diastolic blood pressure elevations are important in the identification of HDP. Hypertensive blood pressure readings should be confirmed using the appropriate measurement technique (as described below) with remeasurement after 10-15 minutes of rest.

- Chronic (pre-existing) hypertension is defined as systolic blood pressure ≥ 140 mm Hg OR diastolic blood pressure ≥ 90 mm Hg, or both, before 20 weeks of gestation, or prior to pregnancy. Elevated readings should be documented on more than one occasion.
- Gestational hypertension is defined as new hypertension (systolic blood pressure ≥ 140 mm Hg OR diastolic blood pressure ≥ 90 mm Hg, or both) presenting at or after 20 weeks gestation without proteinuria or other features of preeclampsia; this terminology replaces the term "Pregnancy-Induced Hypertension".
- Severe hypertension in pregnancy is defined as systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 110 mm Hg, or both. The Society of Obstetricians and Gynaecologists of Canada (SOGC) expert consensus suggests that a single reading at this level be confirmed within 15 minutes

Proteinuria in pregnancy

• In the context of identification of preeclampsia, significant proteinuria is present when 24-hour protein excretion equals or exceeds 300 mg/day. The spot urine protein: creatinine ratio has also been used to define significant proteinuria in the identification of preeclampsia. The ACOG practice bulletin "Chronic Hypertension in Pregnancy" notes that a protein: creatinine ratio in the range of 0.15 to 0.3 g protein/g creatinine has been used to identify women who should be further evaluated. The SOGC and the National Collaborating Centre for Women's and Children's Health, National Institute for Health and Clinical Excellence (NICE) identify significant proteinuria as a protein: creatinine ratio of ≥ 30 mg protein/mmol creatinine.

Preeclampsia and eclampsia

- Preeclampsia is defined as hypertension plus significant proteinuria, specifically gestational hypertension plus new onset proteinuria or chronic (pre-existing) hypertension with new or worsening proteinuria.
- Preeclampsia can also occur without proteinuria, with hepatic, hematopoietic, or other manifestations. Edema is no longer considered a specific diagnostic criterion for preeclampsia. Pregnant women with hypertension plus other adverse conditions but no proteinuria should have further evaluation for preeclampsia. If preeclampsia develops in women with chronic (pre-existing) hypertension, the classification of disease is chronic (pre-existing) hypertension with superimposed preeclampsia.



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Biography

Moatasem Bellah Al Farrah is a member of Syrian Doctors Association. He is currently working as an assistant professor in Dummar Medical center and Red Crescent. He is also a member in British Society for Gynecological Endoscopy, International Urogynecology Association, British Society for Urogynecology. His professional interests focus on PCOS and Endometriosis Researches.



- Severe preeclampsia: ACOG criteria for severe preeclampsia include the presence of any ONE of the following:
- Severe hypertension, (systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 110 mm Hg, or both).
- Cerebral or visual disturbance,
- Epigastric or right upper quadrant pain,
- Oliguria,
- Pulmonary edema,
- Cyanosis,
- Impaired liver function,
- Thrombocytopenia,
- Intrauterine growth restriction (IUGR).

Eclampsia is defined as new onset, grand mal seizures in pregnant women with preeclampsia. Some women presenting with eclampsia do not have pre-diagnosed preeclampsia, and some women may present with eclampsia in the postpartum period.

HELLP syndrome is a serious systemic disorder associated with preeclampsia and manifested by haemolysis, elevated liver enzymes (transaminases), and low platelet count.

Assessment of risk for preeclampsia

Risk factors: Various conditions predispose to preeclampsia, including chronic (pre-existing) hypertension, previous preeclampsia, autoimmune diseases, presence of antiphospholipid antibodies, chronic kidney disease, and diabetes mellitus.

Assessment of preeclampsia

All women diagnosed with hypertension in pregnancy should be assessed for the presence or absence of preeclampsia. Women with high risk for preeclampsia should have more definitive evaluation of proteinuria than women at low risk, and high-risk women should be evaluated for preeclampsia through other clinical and laboratory evaluations.

Risk reduction for HDP, preeclampsia and other complications of HDP:

- Anticipatory guidance
- Diet/lifestyle
- Drugs
- Blood pressure threshold and targets for treatment
- The goal of blood pressure management in hypertensive disorders in pregnancy is to optimize pregnancy outcome, which requires consideration of minimizing maternal risk while maintaining placental/fetal perfusion.
- Non-severe hypertension: There is no definitive evidence for optimal blood pressure targets in hypertensive disorders in pregnancy; there is a particular lack of clear evidence regarding the optimal management of women with non-severe hypertension.
- Severe hypertension: Acute management should be initiated for severe hypertension, defined as systolic blood pressure ≥ 160 mm Hg or diastolic blood pressure ≥ 110 mm Hg or both.

Management of these patient from A to Z:

- Drug and doses
- Lifestyle change
- How to monitor and follow the fetus
- Time of delivery and its mode

Postpartum care and follow