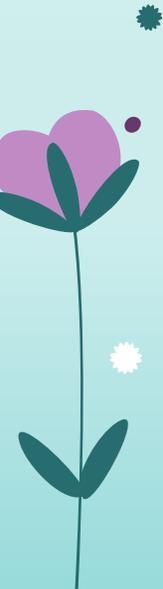
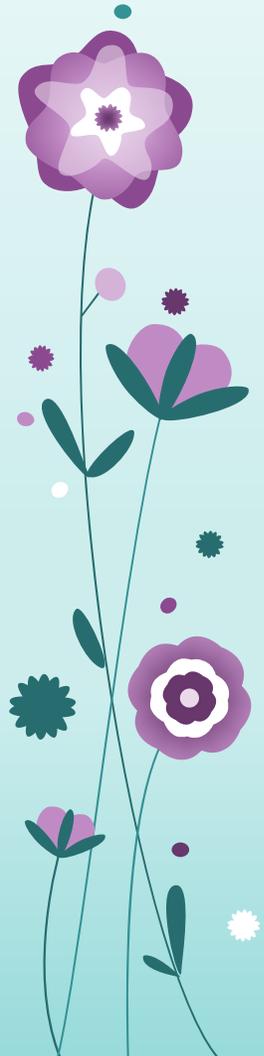


Eclampsia and Preeclampsia



Overview

- Ten percent of all pregnancies are complicated by hypertension. Eclampsia and preeclampsia account for about half of these cases worldwide, and these conditions have been recognized and described for years despite the general lack of understanding of the disease



Definition

- Eclampsia, which is considered a complication of severe preeclampsia, is commonly defined as new onset of grand mal seizure activity and/or unexplained coma during pregnancy or postpartum in a woman with signs or symptoms of preeclampsia. It typically occurs during or after the 20th week of gestation or in the postpartum period.
- Most cases of eclampsia present in the third trimester of pregnancy, with about 80% of eclamptic seizures occurring intrapartum or within the first 48 hours following delivery. Rare cases have been reported before 20 weeks' gestation or as late as 23 days' postpartum.

Definition

- Preeclampsia is a disorder of widespread vascular endothelial malfunction and vasospasm that occurs after 20 weeks' gestation and can present as late as 4-6 weeks post partum.
- Pproteinuria, protein/crea or urine dipstick protein are required to confirm diagnosis.

Definition

- Mild:
 - BP >140/90mmHg
 - Edema +1/+2
 - Headache not present
 - Visual disturbances not present
 - Epigastric pain not present
- Severe:
 - BP diastolic >100mmHg
 - Edema +3/+4
 - Headache may be present
 - Visual disturbances may be present
 - Epigastric pain may be present
- Impending eclampsia:
 - Diastolic >100mmHg,
 - Edema +3/+4
 - Headache present
 - Visual disturbance present
 - Epigastric pain present

Etiology and Risk Factors for Preeclampsia/Eclampsia

- The mechanism(s) responsible for the development eclampsia remain(s) unclear. Genetic predisposition, immunology, endocrinology, nutrition, abnormal trophoblastic invasion, coagulation abnormalities, vascular endothelial damage, cardiovascular maladaptation, dietary deficiencies or excess, and infection have been proposed as etiologic factors for preeclampsia/eclampsia
- Risk Factors:
 - Nulliparity
 - Family history of preeclampsia, previous preeclampsia and eclampsia ^[2]
 - Poor outcome of previous pregnancy, including intrauterine growth retardation, abruption placenta, or fetal death
 - Multifetetal pregnancy, fetal hydrops, primigravida
 - Teen pregnancy
 - Primigravida
 - Patient older than 35 years
 - Lower socioeconomic status

Physical Findings

- Most patients with eclampsia present with hypertension and seizures, along with some combination of proteinuria and edema. Findings at physical examination may include the following:
 - Sustained systolic BP greater than 160 mm Hg or diastolic BP greater than 110 mm Hg
 - Tachycardia
 - Tachypnea
 - Rales
 - Mental status changes
 - Hyperreflexia
 - Clonus
 - Papilledema
 - Oliguria or anuria
 - Localizing neurologic deficits
 - Right upper quadrant or epigastric abdominal tenderness
 - Generalized edema
 - Small fundal height for the estimated gestational age
 - Apprehension

Late Postpartum Eclampsia

- Hypertension may develop for the first time after delivery, with a peak blood pressure 3–6 days after delivery. This corresponds with the mobilization of extracellular fluid accumulated during pregnancy. Thus, blood pressure measurement during the first week after delivery is key, even for women with previously normal blood pressure.
- One-third of women with late postpartum eclampsia have no prior history of hypertension, proteinuria or edema. Two retrospective reviews showed that, for 44%–79% of patients with late postpartum eclampsia, pre-eclampsia was not diagnosed before the onset of seizures. Pulmonary edema, hepatic failure, hemolysis, elevated liver enzyme levels, low platelet count and disseminated intravascular coagulation are several well-recognized complications of eclampsia. Abnormalities may be present in the patient's complete blood count, blood film, electrolytes, international normalized ratio and partial thromboplastin time. There may also be abnormalities in the patient's levels of aspartate transaminase, alanine transaminase, lactate dehydrogenase, bilirubin

Obstetrical Emergency / Childbirth

- Follow CLEMC protocol M12 for treatment guidelines for pre/eclampsia.

