HYPERTENSIVE DISEASE IN PREGNANCY (PBL)

Learning Objectives:
- Understand the effects of pregnancy on the maternal cardiovascular system.
- Devise a clear and rational plan for antepartum care in women with chronic hypertension.
- Understand the distinction between pregnancy-induced hypertension and preeclampsia, and between "mild" and "severe" preeclampsia.
- Discuss the risks and benefits of the various preventive strategies for women at high-risk for developing preeclampsia.
- Counsel patients with a diagnosis of preeclampsia about their management options.
- Recognize and manage appropriately the complications of preeclampsia, including eclampsia (seizures), uncontrolled hypertension and stroke.

Cases below can help you to prepare for this didactic session and to review pertinent clinical points after the session.

Case 1: An 18 year old nulliparous female with no prenatal care was brought to the ER after having two "fits" at home. Her mother thinks she is about eight months pregnant and noticed that her face and hands had become puffy within the preceding 3 days, and that she had complained of headache, blurred vision, and abdominal pain earlier in the day. Her past medical history was unremarkable.

Examination showed a comatose pregnant young woman with foamy spittle at the mouth. Her blood pressure was 160/110, pulse 118, and her temperature was 99.6ºF. The chest examination was unremarkable. Examination of the gravid abdomen showed a fundal height consistent with 34 weeks, a single fetus, vertex and engaged, with a fetal weight of approximately 2,000g. The fetal heart rate was 136 bpm. There was generalized edema present. Deep tendon reflexes were 4+/4+ with sustained knee and ankle clonus. Vaginal exam - cervix 1-2 cm dilated and 75% effaced. The vertex was presenting at 0 station. Membranes were intact.

Laboratory evaluation:
- U/A 3+ proteinuria
- CBC Hct 45%, platelets normal
- SMA BUN 14 mg/100 ml serum creatinine 1.0 mg/100 ml.
  Electrolytes - normal
- Plasma uric acid 8.6 mg/100 ml
- PT/PTT normal

Study Questions:
1. Define mild preeclampsia, severe preeclampsia and eclampsia.
2. What are the risk factors for preeclampsia?
3. What is HELLP syndrome?
4. How do you manage preeclampsia? eclampsia?
5. How would you follow this patient in labor and postpartum?
6. Why is MgSO₄ used? What are the side effects?
7. What are the complications of preeclampsia?

**Case 2:** A 16-year-old primigravida at 35 weeks gestation comes for her routine prenatal visit. Her BP is 150/90 and she has 1+ proteinuria.

**Study Questions:**
1. How would you manage this patient?
2. What laboratory studies would you obtain?