CASE STUDY - INDUCTION OF LABOR

A G3, P2 patient at 41 weeks gestation is admitted for induction of labor. Assessment data reveals: cervix dilated 2 cm, 40% effaced, -2 station, cervix firm, and membranes intact. The patient's last baby was delivered at 40 weeks and weighed 9 pounds. The physician has ordered Prostaglandin administration the evening before Oxytocin in the morning.

1. What is the indication for induction of labor?

   Since the patient is post-term, induction of labor is indicated.

2. Why did the physician order prostaglandins the evening before the induction?

   The prostaglandins are used to ripen the cervix for delivery.

3. What tests or evaluation should be performed prior to the induction?

   The Bishop Score is performed prior to the induction along with determining the position of the baby.

4. What are the nursing considerations when administering an Oxytocin infusion?

   While administering oxytocin, the nurse should monitor the fetal heart rate, contraction pattern, and contraction intensity.

CASE STUDY - Diabetes in Pregnancy

A 30-year-old, G2, P1, is in her 10th week of pregnancy. Her first baby was stillborn at 32 weeks, so she is very worried about this pregnancy. Initial lab work obtained two weeks ago included testing for diabetes, due to the patient's history a stillborn. The physician explains during the first prenatal visit there is a concern for diabetes due to an elevated glucose level. The nurse realizes patient education regarding diabetes, the effects of diabetes on both the patient and baby and how to manage diabetes it is essential.

1. Discuss maternal risks associated with diabetes and pregnancy.
   Maternal diabetes in pregnancy increases the risk of gestational hypertension, preterm delivery, and stillbirth.

2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.
   Fetal risks associated with diabetes in pregnancy are birth defects such as heart or neural tube defects.

3. What educational topics should be covered to assist the patient in managing her diabetes?
   Educational topics that should be covered for management of maternal diabetes is increased insulin requirements throughout the pregnancy and diet and exercise.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
   The patient's baby is most likely to be classified as LGA due to the mother's increased blood glucose being circulated to the baby.

CASE STUDY - Pregnancy Induced Hypertension

A single 17-year-old patient Gr 1 Pr 0 at 34 weeks gestation comes to the physician's office for her regular prenatal visit. The patient's assessment reveals BP 160/110, DTR's are 3+ with 2 beats clonus, weight gain of 5 pounds, 3+ pitting edema, facial edema, severe headache, blurred vision, and 3 + proteinuria.

Patient's history – single, lives with her parents, attending high school, works at local grocery store in the evenings as a cashier, began prenatal care at 18 weeks, has missed two of her regularly scheduled appointments for prenatal care, never eats breakfast, snacks for lunch and eats dinner after she gets off work at 10:00 pm.

1. What disease process is this patient exhibiting? What in the assessment supports your concern?

   The patient is exhibiting severe preeclampsia and the assessment findings that support this are the proteinuria of 3+, blurred vision, and 3+ edema. Hyperreflexia and severe headache are ominous signs of this condition.

2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension?

   With the patient being a 17 year old adolescent, she is at a higher risk for pregnancy induced hypertension.

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested.

   Pregnancy induced hypertension can affect many organ systems such as, the liver, kidneys, uterus, brain, and placenta. The manifestations of these effects are hemolysis, elevated liver enzymes, low platelet levels and hepatic failure which can lead to maternal or fetal death. Pregnancy induced hypertension is also able to progress to eclampsia or grand mal seizures.

4. What will the patient's treatment consist of?

   The patient will need to be admitted for inpatient care where she is to remain on bedrest, laying in left lateral position, and fetal monitoring. Vital signs will be assessed every 15-30 minutes until she delivers with I&O and urine protein checks hourly. Visitors and environmental stimulation will be minimized. The only way to resolve hypertension is to deliver the baby.

5. What is the drug of choice for this condition? What other medication(s) might be ordered for this patient?

   Anti-hypertensive medications are the drug of choice to treat this condition. Common anti-hypertensive medications are Hydralazine, Labetalol, Nifedipine, and Methyldopa. Magnesium sulfate might also be ordered to prevent seizures caused by eclampsia.

6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines)

   Magnesium sulfate must be administered with a loading dose of 4-6g over 15-20 minutes then 1-2g/hr as a continuous infusion via pump using a piggyback into the proximal port. The patient should be monitored for signs or symptoms of magnesium toxicity such as a respiratory rate less than 12, an hourly urine output of 30mL/hr, or serum magnesium of 8mg/dL or higher. If toxicity occurs, the infusion must be stopped, calcium gluconate should be administered, then call the provider.