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?

   The patient is 41 weeks' gestation (full term), only dilated 2 cm, the cervix is firm, and membrane is still intact. In the book it says "SROM at or near term without onset of labor which I believe explains this situation.

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

   Prostaglandin is a drug that may be used to cause cervical ripening. Cervical ripening is the process used to ripen (soften) the cervix and make it more likely to dilate with the forces of labor.

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

   The bishop scoring system is used to estimate cervical readiness for labor with five factors: cervical dilation, effacement, consistency, position, and fetal station. Vaginal birth is more likely to occur if score is higher than 8.

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

The nurse should observe the woman and fetus for complications and take corrective actions if abnormalities are noted. The nurse can decide when to start, change, and stop an oxytocin infusion using the facility's protocols and medical orders.

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.

   Hypertension, preeclampsia, development of ketoacidosis, UTIs, macrosomia (large fetus), dystocia (delayed or difficult birth).
   If ketoacidosis is left untreated can lead to death of the fetus and mother.

2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.

   Fetal
   Congenital malformation such as neural tube defects (NTDs), caudal regression syndrome (where sacrum, lumbar spine, and lower extremities fail to develop), and cardiac defects.
   Also, variations in fetal size.

   Neonatal
   Hypoglycemia, hypocalcemia, hyperbilirubinemia, and respiratory distress syndrome.

3. What educational topics should be covered to assist the patient in managing her diabetes?

   How to check her sugar using the glucometer, proper administration of insulin, a good diet and exercise.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
   SGA. Vascular impairment may be present as a complication of diabetes. If vascular impairment is present that may lead to placental prefusion to be decreased. Impaired placental perfusion decreases supplies of glucose and oxygen delivered to the fetus which will result in SGA.

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? Hypertensive Disorders of Pregnancy. The patients systolic BP is greater than 140 and diastolic BP greater than 90, she has proteinuria, severe headache and blurred vision which are all symptoms associated with Hypertensive Disorders of Pregnancy. The patient also may have preeclampsia which is hypertension that develops after 20 weeks of gestation in a woman with previously normal BP. Generalized edema may be present as well which the patient had 3+ pitting edema.

2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension? It being the patients first pregnancy.

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested. It is generalized vasoconstriction and vasospasm resulting in multiple system organ failure disease.

4. What will the patient's treatment consist of? The only cure for preeclampsia is delivery of the baby and placenta. Until then the patient may be on home care, activity restrictions, monitor BP, weight, urinalysis, fetal assessment and diet.

5. What is the drug of choice for this condition? What other medication(s) might be ordered for this patient? Antihypertensive medications such as Labetalol, Hydralazine, Nifedipine. Other drugs given may be Anticonvulsant medication such as magnesium sulfate used to prevent seizures.

6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines) Caution is essential when antihypertensive medications are given to the women with receiving magnesium sulfate because hypotension may result, reducing placental prefusion.