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?

Indications in this scenario could be the fact that she is already 41 weeks gestation, her last baby was born about this time and weighed 9 pounds, and the mother may be in the latent phase of pregnancy. She has also already had two births, so she is due at any moment.

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

The prostaglandin can help ripen the cervix. Cervical ripening means that the cervix is softening. This allows the cervix to dilate with the forces of labor more easily. The patient's cervix has a Bishop score of around a 4 so this ripening could raise the score. If her Bishop score were raised induction would have a greater likelihood of success.

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

Tests and evaluations that should be performed before induction would be confirming gestational age, assessing FHR for 20 minutes, performing Leopold's maneuver, and vaginal examination. A Bishop score and cervical exam can also be used to estimate cervical readiness.

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

The nurse should observe the woman and fetus for any complications and take corrective actions for any abnormalities they find. The nurse needs to decide when to start, change, and stop an oxytocin infusion. They should follow all policies regarding oxytocin administration. They should also observe fetal and mother responses to the administration.

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 risks include hypertension which could progress to preeclampsia, urinary tract infections, ketoacidosis, labor dystocia, cesarean birth, uterine atony with hemorrhage after birth, and birth injury to maternal tissue. Many of these risks can have harmful effects on the fetus and the mother. Other risks include premature rupture of the membrane due to hydramnios and difficult labor due to macrosomia.

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

Fetal-neonatal risks include congenital anomalies, perinatal death, macrosomia, intrauterine fetal growth restriction, preterm labor, premature rupture of membrane, premature birth, birth injury, hypoglycemia, polycythemia, hyperbilirubinemia, hypocalcemia, and respiratory distress syndrome.

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

The educational topics that should be covered are how to self-monitor her blood glucose level, recommendations for her diet to help manage it, the timing of delivery, exercise, screening, specific tests, effects on mother and child, any other pharmacological treatment, fetal surveillance, risk factors, insulin administration, preconception information, continuous subcutaneous insulin infusion, signs of hypoglycemia, and how to treat hypoglycemia.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.

From the information given it is more likely for the baby to be classified as LGA. I only say this because it only tells us that the mother's blood glucose is elevated which could cause LGA babies if it is not managed properly. It does not say anything about vascular impairment which could cause SGA so the baby more than likely would not be classified as SGA. The mother probably does not have vascular impairment since she did not have preexisting diabetes. The mother is only in her 10th week of pregnancy so if the patient does have diabetes, she could manage it well and have an AGA 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?

She is exhibiting severe preeclampsia. The assessments that support this are that she is at 34 weeks gestation, has a blood pressure of 160/110, blurred vision, and she has 3 + proteinuria. Another assessment that supports it is the presence of edema, but this assessment is nonspecific since it occurs in many pregnancies that do not have hypertension. The presence of proteinuria rules out gestational hypertension, her blood pressure is 160/110 and she has blurred vision which indicates that it is severe, and there are no seizures, so it is not eclampsia.

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

This patient's risk factors are that this is her first pregnancy and the fact that she is only 17.

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

It can affect the vascular bed which shows edema, vasoconstriction, and vasospasms. Cardiovascular which shows as increased blood pressure, myocardial ischemia, and increased hyperdynamic cardiac activity. Pulmonary which shows as pulmonary edema and left ventricular dysfunction. Renal which shows as proteinuria, increased serum uric acid, decreased creatinine clearance, increased BUN, and oliguria. Hepatic which shows as elevations in liver function tests, HELLP syndrome, elevation in bilirubin, and signs of liver failure. Hematologic shows as thrombocytopenia and hemolysis. The central nervous system shows cerebral edema, CNS alterations, and hyperreflexia. It can also manifest oligohydramnios.

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

Her treatment will consist of antihypertensive medications, bed rest, blood pressure monitoring, fetal monitoring, anticonvulsant medications like magnesium sulfate if it worsens, daily weight, urinalysis, and possibly early delivery. After delivery, she will need a careful assessment of her blood loss and should be monitored for shock

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

The drug of choice would be antihypertensives like Labetalol, Hydralazine, and Nifedipine. Other medications that could be ordered are Magnesium sulfate, opiate analgesic, or epidural analgesics. The opiate analgesic and epidural analgesia would be for delivery.

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

The nursing consideration for the antihypertension drugs would be closely monitoring the mother's heart rate, blood pressure, blood sugar, and any changes in LOC. The nurse should also give the medication at about the same time every day and make sure the medication is properly taken. Also, the nurse should teach the importance of the patient not abruptly stop taking the medication and the importance of adhering to taking it. The nurse must take the patient’s blood pressure before and after administering the medication.