Jesus Carrasco
OBS Case Studies
IM 6

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?

- Labor involves progressive dilation and effacement. In this case, the cervix is dilated 2cm and 40% effaced.

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

- Prostaglandin is a drug that can be used to cause cervical ripening in order to prepare for birth.

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

- Prior to induction a cervical assessment should be done to see if the cervix is favorable for vaginal delivery. The Bishop scoring system is used to estimate readiness by: dilation, effacement, consistency, position and fetal station.

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

- The nurse should observe the fetal response can be aware of uterine contraction progressing to Tachysystole.

- The nurse should observe the fetal heart rate patterns for bradycardia/ tachycardia and/or decelerations and decreased variability.

- The drug should always be administered through the most proximal port and by pump.

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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.

   - Mothers are at higher risk of having a still birth or miscarriage.
   - During early pregnancy, nausea and vomiting may occur which can worsen hypoglycemia.
   - During late pregnancy, the mother has an increase in estrogen and progesterone which could potentially cause resistance to insulin in maternal cells.
   - Hypertension and preeclampsia
   - Birth injury to maternal tissues

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

   - Infants are at risk for macrosomia, hypoglycemia, respiratory distress syndrome, polycythemia, hyperbilirubinemia.
   - Risks also include Intrauterine fetal growth restriction and preterm labor.

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

   - Educational topics should include Diet and Exercise, Blood glucose monitoring and management by Pharmacologic treatment.
   - Instructing the mother on fetal surveillance by fetal "kick counts" can help control glucose and prevent fetal compromise.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
   - The patient's baby is more probable to be LGA. A fetus is unable to produce all the insulin it needs for survival. High blood glucose levels from both mother and fetus results in the accumulation of large deposits of fat which causes excessive fetal growth.

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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 may be exhibiting Preeclampsia. Which can develop after 20 weeks gestation. Others symptoms involve proteinuria and visual disturbances.

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

    - 17 years of age, lack of prenatal care, irregulated and unhealthy diet place her at risk for pregnancy induced hypertension.

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

    - Increased blood pressure smaller and larger vessels over time can lead to damage to organs overtime. The heart is affected due to the increase in cardiac output which eventually loses the ability to contract effectively. This in turn, decreases the profusion or increased pressure to other vital organs such as the brain which may lead to the patients blurred vision and increased headaches. The kidneys have increased in proteinuria due to the decrease in pressure moving through the kidney decreasing and not providing the kidneys with sufficient amount of blood filtered and increasing the concentration of protein.

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

    - Preeclampsia is managed by either oral or IV medications until delivery.

    - Regular exercise and diet management

- Proper Prenatal care and management

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

   - Magnesium sulfate may be use to prevent eclamptic seizures and prevent injury to fetus brain.

   - Diazepam may also be prescribed as an anti-convulsant.

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

   - Nursing consideration for magnesium sulfate is hypotension, hyporeflexia or CNS depression. May cause: flushing, sweating.

   - Administration: can be diluted with D5W or NS. The max infusion rate is 150mg/min (except in severe eclampsia with seizure) Can be mixed with lidocaine to reduce pain.

   - Renal Patients may be at risk for magnesium intoxication.

   - Administration beyond 5 to 7 days can lead to hypocalcemia and bone abnormalities to developing fetus.