Briana Narvaiz

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?

Induction is more likely to be successful at term because prelabor cervical changes favor dilation. The patient is 41 weeks, and some doctors consider the gestational age postterm labor, therefore, the doctor may want to initiate labor earlier due to fetal compromise. It is associate with neonatal respiratory morbidity.

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

Prostaglandins are used to cause cervical ripening, therefore, preparing for dilation.

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

Some test we would perform would be cervical assessment and Bishop scoring system

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

When administering oxytocin, we want to start it slowly then increase gradually and regulate with an infusion pump. UA, FHR, and fetal heart patterns are monitored before induction for a baseline, when oxytocin is started and throughout labor. Oxytocin receptor sites become desensitized from prolonged exposure. Continual rate increases can result in abnormal UA (tachysystole), coupling or tripling of contractions, or low- intensity contractions. Rate of

oxytocin gradually reduced once the active phase of labor is reached to decrease the receptor site saturation. It may be stopped, or the rate reduced after the patients' membranes rupture. When labor is augmented with oxytocin, a lower dose usually is needed to achieve adequate contractions compared to the dose needed for labor induction.

Briana Narvaiz

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.

Diabetes in pregnancy can cause hypertension, preeclampsia, urinary tract infection, ketoacidosis, labor dystocia, cesarean birth, uterine atony with hemorrhage after birth, birth injury to maternal tissues.

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

Fetal risk associated with diabetes is congenital anomalies, perinatal death, macrosomia, intrauterine fetal growth restriction, preterm labor, premature rupture of membranes, preterm birth, birth injury, hypoglycemia, polycythemia, hyperbilirubinemia, hypocalcemia, respiratory distress syndrome.

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

The mother should take daily prenatal vitamin with folic acid, diet individualized to the pregnant woman, self- monitoring of blood glucose level, and insulin therapy. The first trimester the need for insulin decreases, the second trimester and third trimester the need for insulin increases.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer. The patients baby is more likely to be classified as LGA because fetal hyperglycemia stimulating production of insulin to metabolize carbohydrates; excess nutrients transported to fetus.

Briana Narvaiz

Briana Narvaiz

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 experiencing severe preeclampsia. The patients' blood pressure is 160/110, DTRs 3+ with 2 beats clonus, weight gain 5 pounds, 3+ pitting edema, and 3+ proteinuria.

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

   The patient is a teenager, started prenatal care late, and doesn't have good nutrition.

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

   Pregnancy induced hypertension affects the cardiovascular system by decreasing intravascular volume, pulmonary edema, and congestive heart failure.
   The pulmonary system by pulmonary edema, hypoxemia, and academia. The renal system by oliguria, acute renal failure, and impaired drug metabolism and excretion. The hematologic system by hemolysis, decreased oxygen- carrying capacity, thrombocytopenia, coagulation defects (DIC) and anemia. The hepatic system by hepatocellular dysfunction, hepatic rupture, hypoglycemia, coagulation defects, and impaired drug metabolism and excretion. The uteroplacental system by abruption and decreased uteroplacental perfusion.

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

   The treatment will consist of monitoring for signs of impending seizures, initiate preventative measures, prevent seizure- related injury, protect the woman and fetus

during a seizure, provide information and support for the family, and monitor for signs of magnesium toxicity.

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

   Magnesium sulfate is the choice for this condition and opiate analgesics, epidural analgesia, oxytocin, and antihypertensive medications.

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

   When administering magnesium sulfate, we need to watch for signs of toxicity such as respiratory depression with a rate of few than 12 per minute, chest pain, decreasing maternal pulse oximeter values, absence of DTRs blurred vison, hypotension, and oliguria.
   Stop the drug if any of these side effects occur. Calcium stops the effects of magnesium toxicity it would be reversed by IV of 1g of calcium gluconate over 3 minutes.