

Labor and Delivery Case Study

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Introduction

- M.B., a 28 year old female, presented to the birthing center of a local hospital. She was 40.1 weeks gestation. She is a gravida 1 para 1 living 1. M.V. delivered a seven pound, two ounces, twenty-one inches long, baby boy on February 7th, 2011 by cesarean section. The patient has a history of mitral valve prolapse, hypothyroidism, genital herpes, and obesity. The patient is single with no known drug allergies. She smoked fifteen cigarettes per day for nine years. She had five years of college experience and currently works at a local hospital as a sleep technician. During the pregnancy, M.B. had fetal decelerations, prolonged bradycardia, and a breech baby.
- M.B. was trying to breast feed her baby. She states “The baby is having difficulty latching onto my breast. I cannot feel him sucking.” She is referred to the lactation consultant. The lactation consultant gave her different tips on breast feeding her baby, such as different ways of holding her. She also provides her with a pump so she can still give the baby her breast milk only through a bottle.

Reason for Admission

- Labor

Labor Information

- M.B.'s labor started on 2.7.2011 at 03:00. She had a spontaneous rupture of membranes at 11:07. She delivered at 14:02 with a placental delivery at 14:04, for a total labor time of 11 hours and 4 minutes. M.V. was given an epidural for pain control. The patient had lactated ringers running at 125ml/hr with 20 units of pitosin. The 8 hour total intake and output balance was an intake of 1835 ml and an output of 550 ml.

Patient History

- Herpes
- Hypothyroidism
- Mitral Valve Prolapse

What is herpes?

- Herpes Simplex Virus (HSV) causes an infection which can be recurrent and last a lifetime. There are two different types of HSV, HSV-1 and HSV-2. HSV-2 causes most recurrent infections. It is spread through vaginal, anal, and oral sex. Some people are not aware they have HSV due to the infection staying dormant (not making itself known by causes lesions). The first outbreak of HSV is characterized by an outbreak of lesions or blisters which usually occur on the genitals. They can appear within a few hours to 20 days after being exposed. After the lesions heal, the virus then goes into the dormant stage. Some people never have recurrences while other people have frequent recurrences. There is no known cure for herpes, but there are medications to help prevent the virus from spreading. (Olds pg 115-116)

What is hypothyroidism?

- Hypothyroidism is a deficiency of thyroid hormone (TH) which results in a slowed metabolism, decreased heat production, and decreased oxygen consumption. Usually TH levels are low and TSH (thyroid-stimulating hormone) is elevated. This indicates that the pituitary gland (the gland that stimulates the thyroid to release TH) is working properly but the thyroid is not responding. The symptoms of hypothyroidism are cold, lethargy, dry skin, forgetfulness, depression and some weight gain. Constipation and lack of normal physical activity are also common. As it worsens, the thyroid enlarges. (Black & Hawk pg 1020-1021)

What is mitral valve prolapse?

- Mitral valve prolapse is a condition in which the mitral valve tends to prolapse into the left atrium during ventricular systole. This is due to the chordae tendineae that support them are longer and thinner than normal. MVP is usually asymptomatic. It is found more in women than in men and it is usually hereditary. It is found in 12 to 17% of women. Usually women with MVP can tolerate childbirth well. Some symptoms are palpitations, chest pain, and dyspnea. These symptoms are usually due to arrhythmias and treated with Inderal. (Olds pg 471-472)

Complications during Labor

- Fetal Decelerations (late)
- Breech Baby
- Prolonged

What is late fetal decelerations?

- A late fetal deceleration is an apparent, gradual decrease in the fetal heart rate with a return to the baseline heart rate. Late decelerations are due to uteroplacental insufficiency (lack of oxygen and blood flow to the baby). The FHR usually goes 10 to 20 bpm below the baseline but can go as low as 30 to 40 bpm below the baseline. The decels strength usually correlate with the strength of the woman's contraction. Anytime late decels are detected and are repetitive immediate intervention is required. Sometimes, the only intervention needed is maternal repositioning. If this does not correct the problem, usually prompt delivery is done, usually in the form of a C-section. (Olds pg 634)

What is prolonged bradycardia?

- Prolonged Bradycardia (or prolonged decelerations) is when the FHR is below the baseline (15 bpm) for more than two minutes but less than ten minutes from onset to return to the baseline. (Olds pg 634)

What is breech baby?

- Breech position is one of the positions given to baby's who are not in the cephalic position for birth. There are three different types of breech position: complete, frank, and footling. Complete breech is when the butt and feet are in the maternal pelvis and the knees and hips are both flexed. Frank breech is when the hips are flexed, knees are extended, and the butt and feet are in the maternal pelvis. Footling breech is when the hips and legs are extended and the feet of the fetus is in the maternal pelvis. (Olds pg. 580)

Baby's Information

- M.B. delivered a baby boy on 2/7/2011 by ceaseran section at 14:02. He was seven pounds, two ounces, twenty-one inches long. Both his one minute and five minute APGAR scores were seven. His head circumference was 13.0 inches. He was vaccinated with hep B on 2/8/2011.

Mother's Assessment

- Mother's assessment was normal.

Baby's Assessment

- Baby's assessment was normal.

Mother's Lab results

Prenatal Tests	Norms	Patient Results	Analysis
Type & Rh	N/A	O Positive	Patient's blood type is O and she is positive for Rh meaning no Rhogam is needed
Hemoglobin & Hematocrit	12-16 g/dl 38-47%	14.1 41.7	Patient's results are normal
VDRL/RPR	NR	NR	Patient is negative for Syphilis
Rubella	Immune	Immune	Patient is immuned to rubella
Urine C & S		N/A	
Sickle Cell	Negative	N/A	
Chlamydia/Gonorrhea	Negative	N/A	
PAP test	Negative	N/A	
Triple Screen	Negative	N/A	
Group B Beta Strep	Negative	Negative	Patient's results were negative, so no need to give antibiotic.
1 hr Glucose Tolerance	>95 mg/dl	157 mg/dl	Patient's sugar was high, so further testing is needed to diagnosis gestational diabetes
3 hour Glucose Fasting 1 hr 2 hr 3 hr	>180 mg/dl >155 mg/dl >140 mg/dl	153 mg/dl 143 mg/dl 143 mg/dl	Patient's results did not exceed the normal, so patient was not diagnosed with gestational diabetes.

Baby's Lab Results

Lab Test	Normal	Baby's Results	Analysis
Glucose	<45 mg/dl	49 mg/dl	Normal
Bilirubin	2.0-6.0	7.3	High
Coombs Test	Negative	Negative	Baby is normal

Mother's Medications

- Inderal – 160 mg PO qd - MVP
- Synthroid – 75 mcg PO qd - Hypothyroidism
- Valtrex – 500 mg PO qd - HSV
- Multivitamin – 1 tab PO qd - Prenatal
- Senokot – 1 tab PO qhs - Laxative

Psychological Nursing Diagnosis

Nursing Diagnosis:	Disturbed Body Image R/T pregnancy AEB incision site/scar, edema, striae and pregnancy weight gain
Goal:	STG: The patient will demonstrate acceptance of self before discharge from the hospital LTG: The patient will demonstrate weight loss towards her pre-pregnancy weight within 6 months after discharge
Interventions:	- Intervention: Encourage patient to exercise to help them lose weight gained during pregnancy Rationale: The American Nursing Association suggest exercising as a way to help return to pre pregnancy body - Intervention: Encourage patient to express feelings and how she feels or views her physical appearance Rationale: Acceptance of changes due to the pregnancy - Intervention: Educate patient on expected weight gain during pregnancy and proper ways of returning to pre-pregnancy weight Rationale: Decrease in anxiety on weight gained during pregnancy and well-balanced diet and exercise to promote maternal weight loss and infant growth - Intervention: Encourage partner to express acceptance of changes in mother's physical appearance Rationale: Acceptance from others help boost self-confidence, self-esteem and self-acceptance
Evaluation of Goal:	Goal not met. Continue with care plan and will continue to monitor.

Nutritional Nursing Diagnosis

Nursing Diagnosis:	Impaired nutrition status R/T ineffective latching-on to breast AEB ineffective sucking secondary to knowledge deficiency.
Goal:	STG: Mother will explain types of feeding cues and proper feeding techniques by discharge. LTG: Mother will follow up with lactation nurse about progress made will latching-on within 3 weeks.
Interventions:	1. Intervention: Visit from lactation nurse to teach or modify techniques for feeding Rationale: Nurse is specialized in this kind of teaching. She is used as a resource 1. Intervention: Explain to mother cues of feeding such as rooting, lip smacking, and sucking Rationale: Promotes feeding experience for newborn and mother 1. Intervention: Discuss alternate feeding options with mother and about the possibility of supplement nutritional feeding until newborn is able to suck effectively such as bottle feeding and pumping and feeding from bottle Rationale: These are different ways for newborns to get the nutrition needed 1. Intervention: Educate about proper feeding positions for latch-on Rationale: Helps promote latching-on
Evaluation of Goal:	Goal not met. Will continue with interventions and will continue to monitor.

Physiological Nursing Diagnosis

Nursing Diagnosis:	Risk for neonatal transmission related to HSV AEB positive HSV cultures.
Goal:	STG: Patient will be able to identify the signs and symptoms of an outbreak of HSV by discharge. LTG: Patient will report no outbreaks during pregnancy.
Interventions:	- Intervention: Educate patient about the importance of taking antiviral medications (@ 36 weeks). Rationale: Antiviral medications help prevent outbreaks and transmission to baby during birth. - Intervention: Education patient about the possible need for C-section if symptoms are present at time of start of labor. Rationale: If symptoms are present – transmission to the newborn is more likely - Intervention: Inspect the perineum, vagina, and cervix at the onset of labor for any lesions and inquire symptoms the women associates with HSV. Rationale: Knowledge of an outbreak during labor allows the need for a C-section to reduce transmission. - Intervention: Reinforce the risks of neonatal herpes. Rationale: Reinforcement helps to prevent the spread of disease.
Evaluation of Goal:	Goal not met. Will continue with interventions and will continue to monitor.

Educational Nursing Diagnosis

Nursing Diagnosis:	Knowledge Deficit R/T new motherhood AEB Gravida 1 Para 1
Goal:	STG: Mother will be able to express proper techniques of taking care of her newborn before discharge. LTG: Mother will continue to show progress of taking care of baby by 6 week check- up.
Interventions :	1. Intervention: Encourage mother to attend the hospitals discharge class. Rationale: The discharge class helps new mothers learn how to give their baby a bath, feeding their baby, cord care, swaddling, etc. 1. Intervention: If mother is breast feeding - encourage her to meet with a lactation consultant. Rationale: Lactation consultant is experienced in breast feeding and can help mother with any questions or problems she might be having 1. Intervention: Encourage mother to keep up with her baby's vaccines. Rationale: Vaccines are very important to the baby's health. 1. Intervention: Teach mother about proper feeding techniques – breast and/or bottle. Rationale: Proper feeding techniques are important for the baby's nutrition.
Evaluation of Goal:	Goal not met. Will continue with interventions and will continue to monitor.

Conclusion

- Overall, we are very satisfied that we chose this patient for our paper. We found that her history and her pregnancy were very interesting and it taught us more about pregnancy. It especially taught us more about how HSV can transmit to the baby during pregnancy and during birth.