CASE STUDY #5

BRIEF HISTORY:
An obviously pregnant Laotian woman is admitted to Labor and Delivery. She speaks no English. She appears to be in her early 20's, slightly malnourished and is holding her abdomen as she walks into the room. Her husband is with her. When you ask him if he speaks English he answers, "little bit". Through him you are able to find out that she has had no prenatal care (and therefore no EDC). You ask him when the baby is due and he replies, "baby come today". You are able to determine that this is her first baby.

The patient willingly changes into a hospital gown after being shown what she is to do. She is reluctant to lie in the bed. You explain to her husband what you want her to do and she cooperates after he explains. You attempt to apply the ultrasound transducer and the patient pushes your hand and the transducer away from her. You explain to her husband what you are trying to do and he does not agree to monitoring by stating, "no machines". You explain that it will not hurt his wife or the baby, he still will not agree. She is grimacing with her contractions that you palpate as moderate and are 3 minutes apart. She allows you to do a vaginal exam. You find that she is 3 centimeters dilated, 80% effaced and -2 station. Membranes are intact and bulging.

You then try to listen to the fetal heart tones with a Doppler. You explain to the husband that you are going to listen to the baby's heart beat with the Doppler. He does not disagree to the procedure and the patient cooperates as you approach her. You assess the baseline rate to be 134. The patient has a contraction and you listen through the contraction plus an additional 30-60 seconds beyond. The heart rate slows for 45 seconds before you hear the rate begin to rise. You once again explain that you would like to use the fetal monitor to listen to the baby's heart beat. He will not agree to this. You listen to the heart rate before, during and after another contraction. You detect the same heart rate, drop and rise as previously.

Questions:

1. What do you do next?

2. What would you do if membranes ruptured and the fluid was thick meconium?

3. What would you do if the patient had also refused use of the Doppler?
Case Study #5 (continued)

Possible Responses:

1. According to ACOG standards, use of a Doppler to assess fetal heart tones (if done at the correct intervals based on risk assessment) is equivalent to continuous monitoring. Therefore continuing to use Doppler assessment is appropriate.

2. The patient speaks no English and her husband's use of language is limited. It may be assumed that if he speaks only a little English he probably understands only a little English as well. It is necessary to try to locate an authorized interpreter (via phone or in person). Your hospital should have a policy in place to locate a translator. Another option may be to contact the local Red Cross or community Hmong organization. Either may be able to help you locate someone willing to help with translation. In order to pursue further evaluation by use of the fetal monitor, it needs to be explained to the patient and her husband in their own language.

3. In the instance of thick meconium fluid along with the presence of audible decelerations would you as the caregiver prefer to use continuous monitoring? Most will answer "yes" to this. However, if the patient refuses this method, even after you are sure she has an understanding of the situation through an interpreter, she cannot be forced to be monitored. Forcing her to do so would violate her rights.

4. If the patient had refused any electronic monitoring, including the Doppler you may try a fetoscope or stethoscope to assess fetal heart rate. If even these methods are refused you cannot force the patient to allow you to assess her.

5. In instances of language barrier the use of an interpreter is essential. You cannot be sure the patient understands what you are explaining or asking, and therefore cannot assume the answers are what the patient intends. An interpreter allows you the ability to communicate in the patient's own language. For instance this situation may be interpreted on your part as the patient's unwillingness to use electronic equipment. This may not be the case at all. It is not acceptable to use a family member (e.g., child/husband) to interpret.
OUTCOME:
This is the story of a real patient. Fortunately an interpreter was available through the hospital and she was able to find out that the family had very little money. The husband had lost his job and feared he could not pay for the hospitalization and thought the monitor would add to the cost. This is also why the patient had not had any prenatal care. The interpreter was able to assure the patient and her husband that arrangements could be made for them. A social worker was contacted later and the family was eligible for Title 19 medical assistance. The patient and her husband eventually agreed to continuous monitoring. The baseline rate was 135, moderate long term variability with the presence of variable decelerations to 90 bpm that lasted 45-50 seconds. The patient had a vaginal delivery of a baby boy weighing 6 lb. 12 oz. with APGAR’s of 8/9.

Additional Thoughts:

What would you do if, even after explanation by the interpreter, the patient refused continuous monitoring?

What if after interpretation the patient then refused even Doppler assessment?

What if there was no interpreter available?
CASE STUDY #6

BRIEF HISTORY:
This 24 year old gravida 1, para 0 was admitted to labor and delivery at 40 weeks gestation. Membranes are intact and she is being monitored externally. The baby is a breech presentation. This portion of tracing is from the early stage of active labor.

TRACING (EXTERNAL MONITORS):

QUESTIONS:

1. What is the contraction pattern? (interval, duration, resting tone if appropriate)
   (This is difficult to tell as the strip is of poor quality, but approximately 2 contractions, 3 minutes apart. As it is an external toco recording, the uterus should be manually palpated to ascertain strength, duration, and resting tone.)

2. What is the baseline fetal heart rate?
   (125)
Case Study #6 (continued)

3. What is the baseline variability?
   (Minimal to moderate (difficult to read r/t poor strip quality)

4. Are there any periodic changes present?
   (2 accelerations which meet NIH criteria)

5. Are there any episodic changes present?
   (No)

6. What are the probable causes of the changes present?
   (Stimulus r/t uterine activity)

7. When was the last reassuring sign of fetal well-being?
   (This is a reassuring FHR strip, especially for a 18+ week gestation pregnancy.)

8. What is the cause of the periodic (uniform) accelerations?
   (The accelerations are caused by mild umbilical cord compression. This pattern is often seen when a baby is presenting breech.)

OUTCOME:
This mom delivered a baby boy vaginally after 9 hours of labor. The baby's APGAR scores were 8/9.
CASE STUDY #7

BRIEF HISTORY:
G1 25 year old at 40 weeks presented to the hospital with a history of not feeling the baby move that day. Rest of history was not remarkable and non-contributory. EFM was placed at 0844. At 0900 a FSE electrode was placed

Ultrasound confirmed no fetal heart movement and the FSE was removed at 0935. Pitocin induction occurred and a stillborn boy weighing 7 lbs 1 oz was delivered at 1530.

TRACINGS:
Strip 1(EXTERNAL)
QUESTIONS:
1. What is the contraction pattern? (interval, duration, resting tone if appropriate)
2. What is the baseline fetal heart rate?
3. What is the baseline variability?
4. Are there any periodic changes present?
5. Are there any episodic changes present?
6. What are the probable causes of the changes present?
7. When was the last reassuring sign of fetal well-being?

(Strip 1):
- No contractions—toco not on.
- Baseline is 130
- Variability is moderate.
- No accelerations
- No decelerations

(Strip 2):
- No contractions—toco not on.
- Baseline is difficult to determine, ~120
- Variability is moderate.
- No accelerations
- No decelerations

(Strip 3):
This is not a fetal tracing, it is maternal—what looks like acceleration is maternal response to learning her baby was dead.

8. How was the FSE able to produce a tracing?
(FSE was receiving the electrical output of the mother)

9. What was the tracing (FSE) recording since it was not a fetal signal?
(FSE was recording the maternal cardiac signal)

10. What device or method (outside of an ultrasound) should be used to determine fetal heart rate?
(Stethoscope)
CASE STUDY #8

BRIEF HISTORY:
G5 P2, age 41 at 39 5/7 weeks. She presented to the labor area at 0155 with a feeling that something is wrong. She’d been worried since 2200. Her doctor taught her about counting fetal movements and the “baby just wasn’t moving as much as it should.” Her vaginal exam revealed a firm cervix; 1 cm, presenting part floating.

TRACINGS:
Strip 1 (EXTERNAL)

Strip 2 (EXTERNAL)
QUESTIONS:

1. Interpret tracing #1 – baseline, variability, periodic/episodic changes, contraction pattern.
   (No contractions noted. Baseline indeterminent--2 minutes of baseline not available for evaluation, wandering baseline. Variability is moderate. Possibly many accelerations. No decelerations.

2. Interpret tracing #2 – baseline variability, periodic/episodic changes, contraction pattern.
   (No contractions noted—patient was changing positions. Baseline = 100. Variability is minimal. No accelerations. Prolonged deceleration.)

3. Interpret tracing #3 – baseline variability, periodic/episodic changes, contraction pattern.
   (Contractions—one, possibly at start of deceleration. Baseline = 155. Variability is moderate. No accelerations. Prolonged deceleration.)

4. What are possible reasons for the fetal heart rate change?

5. What would your actions be?

6. What are your actions for tracing #3?
   (The tracing was showing episodic and periodic prolonged severe decelerations and fetal intolerance to the variable decelerations became evident. The fetus would not be able to tolerate labor. A primary cesarean birth was performed. Dark meconium staining was present at delivery)
OUTCOME:
A 7 lb girl was born with Apgars of 3 and 2. She went to the NICU needing respiratory assistance. She was discharged less than 2 weeks later showing no evidence of sequelae.
CASE STUDY #9

BRIEF HISTORY:
A 30 year old G4 P3 was admitted at 0400 in active labor. She had experienced third trimester bleeding (no previa or abruptio evident on ultrasound) and had numerous reactive NSTs. On admission she was 2 cm. 80-90% effaced and -1 station. At 0500 the physician performed an artificial rupture of membranes. At that time the patient was requesting a labor epidural. The anesthesiologist arrived at 0510. The test dose was administered at 0522.

TRACINGS:
Strip 1(EXTERNAL)

Strip 2(EXTERNAL)
Strip 3(EXTERNAL)

QUESTIONS:

1. Interpret tracing #1 – baseline, variability, episodic changes, contraction pattern.
   (Contractions difficult to discern but appear to be every 2 min. lasting 50-60 sec. Baseline = 150. Variability is moderate. Accelerations: Increases to 170 bpm for 30 seconds. Variable decelerations: Decreases to 80 bpm for 20 seconds.)

2. Interpret tracing #2.
   (Unable to determine contraction pattern—need to reposition toco and palpate. Baseline = 135 at end of strip. Variability is minimal. No accelerations. Prolonged decelerations.)
   a. What would your actions be?
   
   b. What are possible reasons for the fetal heart rate change?
   
   c. What is one action/intervention that may help prevent this from happening?

3. Interpret tracing #3.
   (Contracts every 2 minutes lasting 70-80 sec. Baseline: 145. Variability is minimal. Accelerations: Increase to 170 bpm for 50 seconds. No decelerations.)

OUTCOME:
Some variable decelerations were noted on the tracing along with good variability and accelerations. A 7 lb 8 oz girl was born vaginally at 0615 with Apgars of 9 and 9.