Simulation: HELLP with Seizure

Leslie Cragin, CNM, California Nurse Midwives Association
Ana Delgado, CNM, California Nurse Midwives Association
Ocean Berg, RN, MSN, IBCLC, Nurse Family Partnership Program, San Francisco

Topic: Hypertension in Pregnancy            Scenario: HELLP with seizure
Duration of Scenario: 6 - 13 min
General Description of the Scenario:
Jackie is a 17 yo G1P0 @ 36 weeks by sure normal LMP. She came to triage accompanied by her sister after beginning uterine contractions 8 hours ago, that have been increasing in intensity and frequency. The contractions are every 3-4 minutes, lasting a minute. Jackie complains of a strong headache beginning 2 days ago. The baby is moving less than before labor began. She was admitted for labor 4 hours ago with V/E 4cm, 70%, -2 station.

Brief Medical/OB History:
- Regular visits, no chart available
- Fundal height = 34
- Admit labs: hgb 9.2, hct 30, platelets 90,000

Objectives:

Cognitive:
1. Accurately identify risk factors for severe preeclampsia/HELLP
2. Identify the differential diagnosis for eclampsia
3. Identify medications to be used in managing an eclamptic seizure
4. Know the steps in management eclampsia

Technical:
1. Provide protection from injury and patent airway during seizure
2. Evaluate for interval to delivery
3. Evaluate fetal status
4. Prepare for fetal resuscitation and potentially postpartum hemorrhage

Behavioral:
1. Calls for help in a timely manner
2. Communication with team
3. Maintains a calm demeanor during the emergency
4. Clear communication with the frightened family members

Roles of the participants:
RN, CNM, extra RN, obstetrician,
- Facilitator taps out fetal heart rate
- MD is slow to come in after being called– doesn’t intervene or direct but does ask what is happening

Roles of the Confederates:
- Patient in PartoPants®, Significant other

Equipment: Partopants, bed, sheets, footstool, baby, IV pole/set/fluid, Doppler or fetoscope, delivery set,
Simulator: Actress as Patient with PartoPants
Opening scene: Mother is laboring with _______________
<table>
<thead>
<tr>
<th>Time</th>
<th>Events for Actress and Confederates</th>
<th>Appropriate Actions</th>
<th>Symptoms/Results of inappropriate action</th>
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</table>
| 0-5 min  | Patient (IV in place); midwife/OB RN and significant other in room  
Patient in labor with ctx q3 min  
FHR 120’s  
Pt begins to seize at about 5 minutes into scenario - seizure lasts 90 seconds  
Fetal bradycardia to 80 BPM for 3 min begins with seizure and lasts 3 min | Clean hands  
Begins assessment: talks with patient  
Requests vital signs  
Asks about urine and proteinuria  
May ask for additional labs  
May turn mom into side-lying  
Notes FHR | Initial vitals 138/89  
P=110  
No pain meds given yet  
No proteinuria  
Vaginal exam if done 8 cm, 100 % 0 station  
BP stays in this range - never severely elevated |
| 4/5-10 min | Seizure resolves  
Sister asks what is happening  
FHR 160’s then back to normal  
Pt is postictal/sleepy  
Pt involuntarily pushes | Pt turned to L side, O2 on Mag. sulfate ordered: 4-6 gm IV over 15 minutes or 5 gm IM in each buttock if no IV  
No BP meds since BP is not elevated  
Calls for help  
Evaluates FHR  
Gives accurate concise report to attending  
Vaginal exam | If no Mag. ordered by 2 min postictal, another seizure begins- this should be treated with MgSO4, diazepam ok, but NOT optimal  
STOP SCENARIO |
Guide for review of simulation:
(Remember to focus on cues from the video; these are only triggers for discussion.)

General:
1. How did that feel?
2. Would someone give an overview of the scenario?
3. What did you see?
4. What went well?
5. What didn’t?
6. Was there anything in the 10 commandments that would’ve helped you? (Translated and modified with permission from CAPE, Center for Advanced Pediatric and Perinatal Education (CAPE) 2007; Anderson et al., 2006. Ten Commandments of Simulation: 1) know your environment; 2) anticipate and plan for crises; 3) assume a leadership role; 4) communicate effectively; 5) distribute workload optimally; 6) allocate attention wisely; 7) utilize all available information; 8) utilize all available resources; 9) call for help early enough; 10) maintain professional behavior.)

Cognitive:
1. What were you thinking when you heard about the report?
2. What are the risk factors for pre-eclampsia/severe and HELLP?
3. What are the signs and symptoms of HELLP?
4. What labs would help to evaluate this pt?
5. What other emergencies/complications follow eclampsia (PPH, neonatal compromise)?

Technical:
1. What should be done to protect the patient?
2. What are the components of intrauterine resuscitation?
3. What are the medications to be used in eclampsia with severe HTN?

Behavioral: Focus on 2-3 points
1. Know your environment and team
2. Plan and anticipate
3. Assume the role of leader
   a. Who was the leader?
   b. How did that go? (ask leader and participants)
4. Communicate in an effective manner with the team, the patient and her family
   a. How was the interaction between the midwife/OB and nurse?
   b. How was the communication with the patient?
5. Delegate appropriately
6. Allocate attention wisely
7. Use all your available resources
8. Use all your available information
9. Call for help in a timely manner
   a. What made you call for help?
10. Maintain professional conduct/attitude at all times.

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