Neuroscience nursing interactive patient vignette: Number 2

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SNI PATIENT VIGNETTE 2

The purpose of these patient vignettes is to allow the reader to test their own approach to patients with various neurologic problems. Answering the questions on the website will allow the authors to discuss the various issues brought to light in the case based vignettes. Results of the survey will be discussed in the subsequent issue. The link for answering the questions is https://www.surveymonkey.com/s/snicases2.

Chief Complaint: Postpartum headache.
HPI: A 32-year-old female s/p vaginal delivery with moderate blood loss (250 ml) complains to nursing team of a unilateral headache, slight confusion, and general malaise that started 1 h after delivery. She did have an epidural during delivery but that was removed prior to the start of the headache. She has no prior history of headaches.
PMH: Depression, Irritable Bowel syndrome.
PSH: Appendectomy, L arthroscopic knee surgery to repair torn ACL.
Medications: Zoloft, Pro-biotic (OTC).
As always it is important to think of the most serious possible etiologies first, therefore, which of the following diagnoses are you considering at this time:

1   Choose all appropriate answers?
   - Migraine
   - Post-LP headache
   - Hypertensive encephalopathy
   - Sheehan's syndrome
   - Sinus headache
   - Venous sinus thrombosis.
2   Based on this differential diagnosis, what action should the nurse take first?
   - Administer acetaminophen
   - Perform a complete assessment
   - Call the house-staff caring for the patient
   - Arrange for a stat head CT.

The nurse assessed the patient's level of consciousness, listened to heart and lungs, and checked for postpartum hemorrhage. The assessment did not reveal any abnormalities.

3   What other elements should the nurse concentrate on in his/her assessment (Answer all appropriate)?
   - Mental status examination
   - Reflexes
   - Strength testing
   - Fundoscopic examination
   - Blood pressure.

The patient is able to recall 3 out of 3 words and is oriented to name and place. Reflexes are symmetrical, there is a slight drift on right.

4   What is the most important unique value of checking the reflexes?
   - Finding symptoms of a structural cerebral lesion
   - Detecting myelopathy
   - Detecting new neuropathy
   - Detecting eclampsia.

The nurse calls the resident and informs him that the patient has an abnormal examination and a new headache. The resident asks the nurse to call neurology.

The neurologist calls back and says that he will be there in about 90 min and that the patient should get a stat CT of the head. The nurse calls CT and arranges to transport the patient to CT.

5 Is telemetry required during transport knowing that arranging this will significantly increase the time to prepare for the transport?
   - The patient is medically stable and does not need telemetry during transport
   - Telemetry during transport is necessary.

The patient was prepared for transport to CT without telemetry and just before going to CT, the patient begins to have trouble breathing. Vital signs are checked and the blood pressure is 140/90 with a heart rate of 55 but an oxygen saturation of 98%. The temperature is 100.0°F.

6 What do you think of the temperature measurement?
   - It is nonspecific
   - It indicates that there is a strong possibility of meningitis related to the epidural
   - Suggests a strong possibility that the patient's current problems are due to a urinary tract infection.

7 What is the implication of the blood pressure (Check all appropriate)?
   - This is a normal blood pressure
   - This is a significantly elevated blood pressure in this patient and indicates eclampsia
   - Indicates the possibility of intracranial hemorrhage.

The nurse pages the resident and while waiting for the page to be returned formulates a working differential diagnosis.

8 What is the most likely cause (based on the exam and known history) of the patient's symptoms?
   - TIA
   - Complicated migraine
   - Subarachnoid hemorrhage
   - Stroke
   - Meningitis
   - Sheehan's syndrome
   - Venous sinus thrombosis.

The nurse notes that the patient's breathing is now stable and the patient is being monitored by a portable telemetry unit. The right arm is now weaker and the resident asks the nurse to transport the patient as soon as possible to radiology. The radiology technician indicates the patient can be brought to radiology immediately. A CT is done.

The radiologist reads the scan as showing a hemorrhage in the left parietal region. The neurologist has not arrived yet and the nurse activates the stroke alert system.

A stroke code is called. The stroke neurologist orders a stat MRI/MRV. The MRV shows occlusion of the superior sagittal sinus, the straight sinus and the right transverse sinus.

9 What is the best initial treatment for hemorrhages related to venous obstruction?

- Thrombolytics
- Antiplatelet agents
- Anticoagulants
- Hypervolemia.

10 Now that a diagnosis has been made, how often does the patient need vital signs and neurological evaluations?
   - Every shift.
   - Every 4 h
   - Every 2 h
   - Every hour
   - Every 15 min.

The patient is transferred to the Neuro ICU and the neurologist orders that the patient receive anticoagulation with intravenous heparin.

11 Which of the following lab values will the nurse be following closely during treatment?
   - INR
   - APTT
   - PT
   - ACT

12 In addition to monitoring one of the laboratory values listed in the previous question, the nurse will also monitor for (check all that apply):
   - Hypovolemia
   - Hypercalcemia
   - Seizures
   - Worsening neurological deficits
   - Fever
   - Hypertension.

After the heparin has been running for 2 days, the PTT is now 80 and the patient has a sudden deterioration in mental status becoming comatose. Blood pressure is 175/95 but the pupils are equal and reactive. The nurse calls the neurologist who said that he would be there shortly.

13 What actions at this point would be most immediately useful (Check all appropriate)?
   - Turn off the heparin
   - Call respiratory and anesthesia
   - Hyperventilate using a mask
   - Call CT scan
   - Obtain another PTT.

The patient was intubated and brought to radiology for a repeat CT scan which showed the previous hemorrhage has increased substantially in size. Neurosurgery was consulted but surgery was not recommended and the patient remained unresponsive. The family withdrew care and the patient expired.

14 While the patient was on the heparin before the hemorrhage what actions might have prevented the hemorrhage (Enter all appropriate)?
   - Improved blood pressure control
   - Prophylactic intubation
   - Better monitoring of the PTT
   - Additional fluids.