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Case Study, Chapter 66, Management of Patients With Neurologic Dysfunction

1. Frank Smith is a 42-year-old patient diagnosed with pituitary prolactinoma, a benign tumor that arises from the pituitary gland, resulting in a decrease in libido and impotence and increased milk production of the breast. The patient also has complaints of headache and drowsiness and the presence of visual field changes and papilledema preoperatively. (Learning Objective 6)

- a. What postoperative care should the nurse provide the patient?
 - a. Postoperative management includes replacing and maintain sufficient ADH and fluids. The patient should also be constantly monitored for neuroendocrinologic disorders such as DI and SIADH.
- b. The patient's family asks the nurse how will they know that the problems the patient had before surgery have stopped; what is the nurse's best response?
 - a. The pituitary prolactinoma slowly releases prolactin into the body. Although the tumor is removed with surgery, the hormone cannot be removed, and must leave the body with time. After the surgery, the patient will likely begin taking a dopamine agonist and a hormone replacement therapy to force out the prolactin. The body changes will be subtle, but as the hormone leaves the patient's body, the symptoms will subside.
- c. What management strategies should the nurse anticipate will be ordered to care for diabetes insipidus if it occurs?
 - a. The nurse should monitor the patient's I&O and daily weights. The patient should be observed for signs of hypovolemia. Hypernatremia and hypotension are commonly seen. The nurse should anticipate D5W or 0.9% NS ordered for this patient for rehydration.
- d. What discharge instructions should the nurse provide the patient and family?
 - a. Pick up and administer all prescribed medications. Monitor for extreme hormone imbalances such as trouble getting or keeping an erection. Notify your physician if your symptoms do not go away within six months with treatment. Monitor incision site for signs of infection. Drink plenty of fluids and watch for signs of dehydration.

2. John Moore, a 22-year-old patient who weighs 150 pounds, presents to the emergency department (ED) after being thrown from his horse and passing out for a few minutes; he regained consciousness. The friend who was also riding a horse called the squad. The patient presented with a Glasgow Coma Scale (GCS) of 15, and the neurologic exam was within normal limits (WNL). The ED physician wrote the orders for a CT scan without contrast of the head, CBC, renal and metabolic profile, PT, PTT, and INR. The nurse sent the labs and had the IV of NS at keep-open rate per ED protocol hanging. The nurse was awaiting radiology to call for the patient to go for the CT when the patient had an epileptic cry, became unconscious, stiffened his entire body, and then had violent muscle contractions. The respirations are very shallow, and the lips and nail bed became blue. The patient lost control of bladder and bowel. The patient bit his tongue and blood is coming from the mouth. The radiology department calls and is ready for the patient. (Learning Objectives 7 and 8)

- a. List in the correct order the actions that should be taken by the nurse.
 - a. When entering the room and witness the seizure, the nurse should state "Seizure" to receive assistance from coworkers. She should then draw the curtains to provide privacy. The nurse to ensure the patient's safety but protecting his head and covering the bed rails with pillows or pads. The nurse should loosen constrictive clothing to avoid suffocation and remove glasses or other breakable objects. Nothing should be forced into the patient's mouth, as this could break his teeth. The patient should not be restrained. If possible, the patient should be placed on his side. Post-ictal if the patient's respiratory drive does not return and his lips remain blue, the doctor may consider intubation. The nurse should remain with her patient, but request assistance for prepping for a possible intubation.
 - b. Explain what type of seizure the patient is having, and describe the three phases of the patient's seizure and the specific nursing care for each stage.
 - a. The patient experienced a tonic-clonic seizure. The first phase is the tonic phase. During this time, muscle spasms begin, forcing air out of the lungs, creating the "Seizure cry". During this phase the nursing should respond to the patient, begin safety procedures, and place the patient on his side. This phase is known for impaired breathing, the nurse should ensure the patient has a pulse ox on
 - b. The second phase consists of clonic activity. This is the rapid, intense jerking activity. During this phase, the body releases the bowel or/and bladder control. The patient may return to normal breathing. The nurse should continue to clear the patient's surroundings and ensure his safety.
 - c. The last phase is the Post-ictal phase. The patient is generally unconscious and unaware while the brain recovers from the seizure. The patient slowly regains consciousness and may be

confused, exhausted, sore, or embarrassed. Occasionally, patients are combative during this phase.

- c. The ED physician prescribes the following: Valium (diazepam) 10 mg every 10 to 15 minutes PRN for seizures (maximum dose of 30 mg). Once seizures stop, administer Dilantin (phenytoin) 10 mg/kg IVPB. ECG monitoring continuously, vital signs, GCS, and neurologic checks every 30 minutes. Explain what medications the nurse should provide, in what order, and how they should be administered.
 - a. The phenytoin 10mg/kg IVPB should be infused now. The seizure has stopped, according to the information given. The assessment provided is after the seizure activity and the diazepam was not administered so it should not be administered now. It should be held until the next seizure.