Closed Head Injury with Increasing Intracranial Pressure

Simulated Clinical Experience (SCE™) Overview

Location: Neuro Intermediate Care Unit

History/Information:
A 34-year-old male was found unconscious in his vehicle after smashing into the center divider on a nearby interstate at 0340. A Glasgow Coma Scale (GCS) of 10 (eyes: 2, verbal 3, motor 5) was assessed and documented. After being extracted from his car, he was air lifted to the local Level 1 trauma center. He has no identification on him, and the car he was driving appears stolen according to the police. In the Emergency Department (ED) his GCS was 14 (eye 4, verbal 4, motor 6). Urine and toxicology screens were positive for cocaine, opiates and barbiturates. Blood alcohol level is 245. Spinal x-rays are negative. A CT scan of the head is pending as the department is backed up due to a busy night in the ED with numerous traumas. After stabilization in the ED, the patient is transferred up to the Neurologic Intermediate Care Unit.

Healthcare Provider’s Orders:
- Head CT scan STAT (already scheduled)
- Portable Chest x-ray in AM
- Continuous ECG and SpO₂ monitoring
- O₂ via nasal cannula at 2 LPM
- CBC with differential, Electrolytes, BUN, Creatinine, Glucose, ABG, PT/PTT (done on admission to the ED)
- ABG STAT for SpO₂ less than 92%
- Neuro checks every 15 minutes x4, then every 30 minutes x4, every 1 hour x4 then
- Vital signs every 2 hours
- NPO
- IV 0.9% NS at 100mL/hour
- Sequential compression device
- Famotidine 20mg IVP every 12 hours
- Bisacodyl suppository one PR on day 3 if no bowel movement, then every day pm
- Clean wounds BID x3 days with normal saline and apply tri biotic ointment
- Intake and output every 4 hours
- Notify healthcare provider for:
  - HR greater than 140 or less than 60
  - Systolic BP less than 100 or greater than 180
  - Urine output less than 30mL/hour x2 or greater than 200mL/hour x2
  - Temp greater than 38°C
  - SpO₂ less than 92%

Learning Objectives

1. Uses patient history and assessment data to plan and provide care for a person with a closed head injury who develops increasing intracranial pressure (SYNTHESIS).
2. Anticipates diagnostic orders and therapies, including medications, for the person with a closed head injury and increasing intracranial pressure (COMPREHENSION).
3. Discusses the possible consequences of unrecognized increasing intracranial pressure (COMPREHENSION).
4. Discusses the challenges an elevated blood alcohol level and drug ingestion adds to the neurological assessment (COMPREHENSION).
5. Analyzes the event history, assessment findings and response to interventions to anticipate and prepares for emergency craniotomy (ANALYSIS).
Questions to Prepare for the Simulated Clinical Experience

1. Review the Monroe Kelly Burrows doctrine.
2. What are the three states in a lucid interval?
3. Review the elements in a complete neurological examination.
4. What nursing interventions constitute seizure precautions?
5. What is the goal of nursing management of the patient with a head injury?
6. What are the goals of nursing management of the patient with increased ICP?
7. Identify three nursing diagnoses for a patient with an altered mental status.
8. Given the patient has no identification, without next of kin available, how will the operative consent be handled?
9. What is the primary goal of nursing management postoperatively following a craniotomy?
10. Identify three nursing diagnoses for the immediate postoperative state following a craniotomy.
11. Should the patient regain consciousness, what psychosocial issues may you anticipate as the nurse caring for him?

References


