Autonomic Hyperreflexia (AHR/Autonomic dysreflexia)

Author: Allyson McLean, MSN APN AC-ACNP CNRN

Project Leads: Jennifer Coffman, DNP APRN CPNP-AC CNRN; Lorin Daniels, BSN RN CNRN

DISEASE OVERVIEW

- AHR is a clinical emergency that commonly affects spinal cord injury patients with injury at or above T6 once spinal shock has resolved.
- Pathophysiology of AHR: Sensory input sent from bowel/bladder/skin travels up to the brain but gets stopped at spinal lesions and triggers a sympathetic response. This causes vasoconstriction resulting in hypertension, headache, diaphoresis. A compensatory parasympathetic response to this results in a decreased heart rate.

NEURO EXAM PEARLS

The following assessment findings should prompt consideration and investigation for AHR:

- Hypertension - SBP 20 mmHg increase or higher
- Bradycardia*/Tachycardia
- Headache
- Flushing
- Blurred vision
- Goosebumps/ chills
- Diaphoresis
- Below lesion: pale

*Bradycardia is most common although tachycardia can occur

MANAGEMENT STRATEGIES/ NURSING IMPLICATIONS

Exam risks related to disease, history and nursing concerns

- Quadriplegic patients commonly have low blood pressure, hypertension might not be recognized until compared to a baseline.
- Precipitating factors: Bladder (most common), bowel, skin. When examining patient check catheter for kinks, assess for last void/BM, check skin for pressure/ clothes bunching.
- Check bladder Q4H with bladder scan, straight cath if necessary.
- Check bowel for impaction every shift
- Should have daily bowel and bladder regimen (bowel protocol – daily suppository with digital stim, bladder care: foley catheter, intermittent straight cath)
- Skin assessment q shift and with repositioning. Check for kinking in tubes, wrinkles in sheets etc.
- Continuously monitor blood pressure. Quadriplegic patients commonly have low blood pressure; hypertension might not be recognized until compared to baseline.
- Dermatome review
- Complications: seizure, coma, retinal hemorrhage, stroke, MI, death.
- Can be asymptomatic to life threatening

Priority Nursing Measures if AHR is Suspected

- Sit upright to cause orthostatic hypotension
- Loosen clothing, binders, splints, compression socks
- Empty bladder
- Evacuate stool from rectum