Autonomic Dysreflexia

What is it?

Autonomic Dysreflexia (AD) is a sudden increase in blood pressure, 20-40 mm Hg systolic higher than usual, resulting from harmful, painful, or injurious stimuli applied below neurologic levels in persons with a spinal cord injury (SCI). Someone normotensive may have AD if their baseline SBP is in the 90s.

This condition, which is caused by massive unopposed sympathetic discharge, occurs primarily in those with an injury above the thoracic T6 level. If left untreated, it can lead to a stroke, seizures, or even death. Autonomic Dysreflexia is a medical emergency.

Common Causes:

- Distended bladder (#1 Cause)
- Constipated bowel
- Pressure Injury/Skin damage
- Fractured bones
- Urinary tract infections
- Ingrown toenails
- Uncontrolled Spasticity
- Any condition or procedures that may cause pain or discomfort but is located below neurologic injury level

<u>Treatment recommendations:</u>

- Sit patient upright (90 degrees) & Take off—Take off or loosen anything tight or restrictive
- Monitor BP every 2-3 min.
- Quick exam to include abdomen for distended bladder/bowel and any other organ system below the level of injury that can be the source of dysreflexia.
- If an indwelling urinary catheter is not in place, catheterize the individual. If indwelling catheter is in place, check system for kinks, folds, constrictions, or obstructions.
- Check bowel—Disimpact bowel after inserting anesthetic jelly or ointment.
- Check skin—Examine skin for new wounds, pressure ulcers, burns, cuts, ingrown toenails, etc.
- Find other source—Assess for any other possible source of harmful/painful stimuli or irritant if symptoms have not resolved.
- If systolic BP >150, give an antihypertensive with rapid onset and short duration while causes of AD are being investigated.
 - Nitro Paste—1", apply every 30 min, topically above level of injury, wipe off when BP stable, reapply as needed. Hold if patient has taken PDE5 inhibitors (i.e. Viagra, Cialis, etc.) within 24 hours.
 - Nifedipine IR (if unable to use)—10mg per dose, sublingual form or chewed, may repeat every 20–30 min PRN.
 - Hydralazine: (If unable to use the above)—10mg and repeat PRN.
- Monitor symptoms and BP for at least 2 hrs after the resolution of an AD episode.
- AD can lead to seizures, stroke, or death!

For more details: Clinical Practice Guidelines

SCI Doctor: Shane Stone, MD (UC Davis Health) Clinic Number: 916-734-7041