



Emergency Medical Training Services

Emergency Medical Technician – Basic Program Outlines

Outline Topic: **ALTERED MENTAL STATUS**

Revised: 11/2013

Review A&P of Brain

- Pons - are a part of the brain stem that connect spinal cord and brain so they can communicate.
- Brain stem - controls vital signs.
- Review dura, pia, arachnoids layers. (view pictures on head trauma in chapter 31).

DEFINITIONS

- Aneurism does not mean a leaking blood vessel. An aneurism is a ballooned blood vessel that is prone to burst.

Strokes

- Cerebrovascular Accident (CVA) is also know as stroke.
- 2 types of strokes - Hemorrhagic or Ischemic.
- Hemorrhagic is a ruptured blood vessel in the brain. NOT GOOD.
- Ischemic is a blockage in a blood vessel in the brain. 75% of strokes are these. This is good.
- Hemorrhagic can be caused by an aneurism that ruptures, hypotension, diabetes, smoking.
- Ischemic can be caused by embolism/thrombosis, high cholesterol.

- How to tell the difference - the best way is a CT scan. Hemorrhagic has major mood changes as pressure builds, widening pulse pressure, projectile vomiting, erratic respirations.
- Ischemic we can give a clot buster within 3 hours of onset.
- S/S - unequalness, facial droop, BP changes compared to each side, pupils unequal. May look drunk.
- Might say its the worst headache and it came on suddenly.
- Care: elevate head 8 to 10 inches if BP is good. Place on side to protect airway.
- NOTE: IT DOESN'T MATTER OFFICIALLY WHAT SIDE TO PLACE THEM ON - JUST PROTECT THE AIRWAY.
- CUSHING TRIAD - indicated ICP - Elevated BP but lowering pulse rate, projectile vomiting, widening pulse pressure, erratic respirations.

TIA - Transient Ischemic Stroke

- "mini stroke"
- Looks like a stroke but the person returns to normal function with 24 hours of onset.
- The blockage works loose and blood flow is returned.
- TIA lead to CVA.

Seizures

- Temporary abnormal electrical activity of the brain.
- SEIZURES A CONSIDERED A NON-LIFE THREATENING EVENT IF AIRWAY IS MAINTAINED.

- Anyone can have a seizure.
- Anything that gets to the brain can cause a seizure.
- Causes: low/high sugar, low/high temperature, trauma to the brain, cancer in brain, vision into the brain, smells, swelling of brain, drugs, lack of O2, acids in brain, high BP, infections of brain, or congenital abnormalities.
- Types of Seizures: Generalized (Grand Mal Seizure), Partial (focus seizure), Petit mal seizures.
- Grand Mal is worse. Entire body contracts, urinate on self, last 45 seconds to 2 minutes. major problem is no breathing during the seizure.
- Focal seizure is an isolated area only, not the entire body.
- Petit mal seizure is the "day dream" seizure. Stays in head. Lasts 20 to 40 seconds. More common in children.
- Postictal state is after the seizure when you are in a daze.
- Status Epilepticus - back to back seizures without regaining consciousness.
- Care: GRAND MAL - Do nothing during the seizure except move the environment away so not to hurt patient. Once seizure is done place on side clear airway and maintain airway.
- Nothing in mouth during seizure. They will not swallow their tongue.
- Note: Valium relaxes the muscles only. It doesn't stop the seizure in the brain.

Most common causes of Seizures

- Adults - not taking anti-seizure medication
- Children - spiked fever. Febrile seizure.

Altered Mental Status (AMS)

- Anything that causes a seizure (as listed above) can also cause an AMS.
- The first cause for AMS is lack of O₂ so give O₂, then move on to other causes.
- Place on side, protect airway and look for causes. (drugs, stroke, diabetic, etc...).