FOUNDATIONS of Emergency Medicine

Foundations Frameworks

Approach to Stroke Management

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Initial Stabilization

- ABCs – intubate as needed, beware of Cushing's Triad (sign of herniation), hypotension is rare (discern cause if present)
- Evaluate pupils – consider hypertonic saline/mannitol if blown pupil or signs of herniation (posturing)
- Check glucose

Obtain a CT Brain

Hemorrhagic - Bleed on CT

- Hypertensive
  - Seen with chronic HTN, blood in parenchyma
  - Typical locations: Deep structures (Basal ganglia, Thalamus, Pons, Cerebellum)
- SAH
  - Spontaneous: aneurysmal, AVM
- Hemorrhagic transformation of ischemic stroke

Ischemic - Normal CT

- Large vessel = Cortical lesion affecting ACA, MCA, PCA, Basilar, vertebral territories
  - Diagnosis pearls: (think large vessel IF -> obtain CTA perfusion study)
    1. Decreased level of consciousness
    2. Motor AND sensory deficits
    3. Higher level "thinking" processes are affected
    4. Aphasia, right sided neglect, eye deviation (Frontal Eye Fields)
- Small vessel = Lacunar syndrome
  - No change in consciousness, no aphasia or neglect, motor OR sensory

Treatment

- Neurosurgical decompression
- BP control: utilize nicardipine for goal SBP 140-180
- Reverse anticoagulation
- Increased ICP: hypertonic saline/mannitol, surgical decompression

- Reperfusion treatment (and aspirin if pt is not a tPA candidate)
  - Large vessel: tPA, endovascular intervention
  - Small vessel: tPA

Consider Stroke Mimics

Hypoglycemia	Drug overdose	PRES
Seizure - postictal Todd's paralysis	Complex migraines	Peripheral vestibular disorder
Metabolic encephalopathy	Peripheral nerve compression	Recrudescence