INDICATORS FOR PERFORMING CT PERFUSION (CTP) AND CT ANGIOGRAPHY (CTA) IN TRAUMATIC BRAIN INJURY AT SFGH

CTP Head Only:

- All blunt TBI patients with GCS ≤ 8

CTA Head + CTP Head:

- Skull base fx involving carotid canal/major venous sinuses
- GSW / penetrating TBI with GCS ≤ 13

CTA (Neck and Head) + CTP Head:

- Signs of carotid or vertebral dissection (see below)
- Any C-spine fx involving
  - Foramen transversarium
  - Occipital condyle fx or C1 – C3 fx
  - >30% Lithesis/ subluxation of vertebral body at or above level of C5 on C6 (vertebral arteries enter at C6)

*any of the above studies at the DISCRETION OF ATTENDING NEUROSURGEON, TRAUMA SURGEON, RADIOLOGIST, OR NEUROLOGIST

Clinical Signs/Symptoms of Dissection

Carotid Dissection:

- Horner’s sign
- Carotidynia (pain)
- Anterior circulation ischemia (hemiparesis, hemisensory abnormality, aphasia & hemineglect)

Vertebral Dissection:

- Pain in posterior neck
- Posterior circulation ischemia (cortical blindness, vertigo, vomiting, cranial nerve deficits, tinnitus, coma)