GUIDELINE FOR THE EVALUATION OF BLUNT CEREBROVASCULAR INJURIES IN CHILDREN

REFERENCES:


Any traumatically injured pediatric patient <18 y/o

Any of the following overt signs of BCVI?
- Arterial hemorrhage from oropharynx, nasopharynx or neck
- Expanding cervical hematoma
- New cervical bruit
- Focal neurological deficit (transient ischemic attack, hemiparesis, Horner syndrome, vertebral basilar symptoms)
- Asymmetric pupils possibly consistent with Horner’s Syndrome
- Neurologic deficit unexplained by initial imaging
- Stroke on initial radiographic imaging

Yes

Calculate McGovern Score

GCS ≤ 8 1
Focal Neurological Deficit 2
Carotid Canal Fracture 2
High Risk Mechanism of Injury (e.g. High Speed MVC) 2
Pterous Temporal Bone Fracture 3
Cerebral Infarction on CT 3

MCGOVERN SCORE ≥ 3

Any of the following screening criteria for BCVI present?
*note that some of these criteria require non-contrast CT head and neck to be performed prior to evaluation for BCVI (follow guidelines to determine who requires imaging of head and neck)
- Any traumatic injury above the clavicles, including
  - ICH
  - Skull or facial fractures
  - Cervical spine fractures
  - Soft tissue injury, such as a cervical seat belt sign
- High risk mechanism with normal initial head CT and altered mental status not explained by other factors (e.g. intoxication)

MCGOVERN SCORE < 3

Low risk of BCVI – NO NEED FOR ADDITIONAL IMAGING

OBTAIN CTA HEAD AND NECK