Blunt Cerebrovascular Injury

Indications for CTA neck:
Blunt trauma to head, face, or neck with high risk mechanism*

Positive CTA

Patients w/CVA:
ASA 81mg for life

Grade I/II/IV (w/o acute stroke)

ASA 81 mg daily

Repeat CTA in 7-14 days (unless other indication for ASA):
Stable: no further action
Progression: consult NIR

Follow-up in NIR clinic in 3 months w/repeat CTA

Grade IV w/acute stroke <24 hours

Activate stroke code

Grade III/V

Consult interventional neurology

Grade III:
Antiplatelet therapy x 3 mo

Stent:
1. Start ASA 81mg daily ASAP
2. Add plavix 75mg daily when safe

No stent
ASA 81 mg daily

Follow-up with interventional neurology in 1 month

Grade V: Embolization or operative management

Follow-up with interventional neurology or CVT as appropirate

Negative CTA: no further work-up or intervention

Indeterminate CTA

1. ASA 81 mg po daily
2.Repeat CTA in 24-48 hours

Follow algorithm based on CTA results.
If still indeterminate, ask neuro-interventionalist to review scan.

***High risk mechanisms:**

- Blunt trauma with significant force (MVC, assault with a bat…)
- Does not include ground level falls, minor assaults

BCVI Classifications:

grade I: mild intimal injury or irregular intima
grade II: dissection with raised intimal flap / intramural hematoma with luminal narrowing >25% / intraluminal thrombosis
grade III: pseudoaneurysm
grade IV: vessel occlusion/thrombosis
grade V: vessel transection