

Patient presenting with suspected or confirmed strangulation/asphyxiation (info) (See Appendix 1)
(e.g. hanging, manual strangulation, ligature injury)

Primary Survey
Vital Signs

Compromised?

Yes

ATLS

Patient stabilized

No

ED disposition pending evaluation for suicidal intent or risk assessment for interpersonal violence

Detailed Secondary Exam

signs or symptoms of other traumatic injury/ingestion/comorbidity

Expand workup and treatment

- Airway**
- Dysphonia/hoarseness
 - Stridor
 - Dysphagia/odynophagia
 - Shortness of breath
 - Anterior neck swelling, emphysema, pain
 - Hemoptysis

- Respiratory**
- Dyspnea
 - New oxygen requirement
 - Abnormal auscultation
 - Intubation

- Spine**
- Midline tenderness
 - Step-offs or deformity
 - Extremity paralysis or weakness
 - GCS <15

- Vascular**
- Audible neck bruit
 - Expanding neck hematoma (NOTE - simple ecchymosis alone does not mandate CTA imaging)
 - Focal neurological deficit to include TIAs, Horner's syndrome, vertebrasilar syndrome
 - Arterial bleeding from nose, mouth, neck
 - GCS < 8

- Neurological**
- GCS <15
 - Seizures
 - Focal neurological deficits

CT Soft Tissue Neck w/o Contrast

CXR

CT C-spine

High C-spine fracture (occipital condyle, C1-C3), cervical vertebral body fracture or fracture through foramen transversarium, subluxation or ligamentous injury at any level.

CTA Head & Neck, CT Head w/o contrast (info) (See Appendix 1)

Skull base fracture (e.g. petrous fracture)

CT Head w/o

If symptoms are present, ENT consultation is indicated regardless of cartilaginous or hyoid fractures on CT

Evaluate for pulmonary edema, aspiration, hypoxia

Cervical injury identified

Consider

⊕ arterial injury

⊕ focal intracranial injury

⊕ evidence of anoxic brain injury or persistent depressed GCS, seizures, focal deficits

ENT consult

Reassess respiratory support, frequent suction, consider high PEEP

Spine consult

Neurosurgery consult

Neurocritical care consult

STRANGULATION / ASPHYXIATION APPENDICES:

Appendix 1

Suspected hanging is a Trauma Alert criteria:

For additional overlapping content related to this subject, please see the UCMC BCVI guidelines, which can be found here .
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BCVI - blunt cerebrovascular injury

GCS- Glasgow Coma Score w/o - without intravenous contrast

PEEP - peak end expiratory pressure

TIA - Transient Ischemic Attack

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