



RECOMMENDATIONS FOR THE MEDICAL/RADIOGRAPHIC EVALUATION OF ACUTE ADULT/ADOLESCENT, **NON/NEAR FATAL STRANGULATION**

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Endorsed by the **National Medical Advisory Committee:**

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GOALS:

1. Evaluate for acute medical conditions requiring immediate management/stabilization
2. Evaluate carotid and vertebral arteries for injuries (dissection/thrombosis)
3. Evaluate airway structures and other bony/cartilaginous/soft tissue neck structures

STRANGULATION PATIENT PRESENTS TO THE EMERGENCY DEPARTMENT

HISTORY (ANY of the following; current **OR** assault related and now resolved)

1. Loss of consciousness
2. Visual changes: "spots," "flashing lights," "tunnel vision"
3. History of altered mental status: "dizzy," "confused," "lightheaded," "loss of memory," "any loss of awareness"
4. Breathing changes: "I couldn't breathe," "difficulty breathing"
5. Incontinence (bladder or bowel)
6. Neurologic symptoms: seizure-like activity, stroke-like symptoms, headache, tinnitus, decreased hearing, focal numbness, amnesia
7. Ligature mark or neck contusion
8. Neck tenderness or pain/sore throat/pain with swallowing
9. Change in voice: unable to speak, hoarse or raspy voice

PHYSICAL EXAM (ANY Abnormality)

1. Functional assessment of breathing, swallowing, and voice
2. Thorough examination of neck, eyes, TMs, oral mucosa, nose, airway, upper torso for: tenderness, swelling, bruising, abrasions, crepitance, bruit
3. Venous congestion/petechial hemorrhages/scleral hemorrhages
4. Ligature mark = **HIGH RISK**
5. Tenderness of airway structures/carotid arteries = **HIGH RISK**
6. Mental status/complete neurologic exam

CONSIDER ADMINISTRATION OF ONE 325MG ASPIRIN IF THERE IS ANY DELAY IN OBTAINING A RADIOGRAPHIC STUDY

RECOMMENDED RADIOGRAPHIC STUDIES TO RULE OUT LIFE-THREATENING INJURIES* (including delayed presentations of up to 1 year)

1. CT Angio of carotid/vertebral arteries (GOLD STANDARD for evaluation of vessels and bony/cartilaginous structures, less sensitive for soft tissue trauma) or
2. MRA of carotid/vertebral arteries
3. Carotid Doppler Ultrasound (NOT RECOMMENDED - Unable to adequately evaluate vertebral arteries or proximal internal carotid arteries)
4. Plain Radiographs (NOT RECOMMENDED - Unable to evaluate vascular and soft-tissue structures)
5. Consider fiberoptic direct laryngoscopy to evaluate possible laryngeal injury or airway compromise

POSITIVE RESULTS

1. Consult Neurology/Neurosurgery/Trauma Surgery for admission
2. Consider ENT consult for laryngeal trauma or dysphonia
3. Perform a lethality assessment per institutional policy

NEGATIVE RESULTS

Discharge home with detailed instructions, including a lethality assessment, and to return to ED if: neurological signs/symptoms, dyspnea, dysphonia or odynophagia develops or worsens

IF THE CTA IS NEGATIVE, CONSIDER OBSERVATION OF NEAR-FATAL STRANGULATION PATIENT IF THE AIRWAY IS OF CONCERN. OBSERVATION HAS **NO ROLE IN RULING OUT A VASCULAR INJURY.**

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Recommendations based upon case reports, case studies, and cited medical literature. Click below for hyperlinks, please note that some sources may require purchase or subscription.

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