CLINICAL PRACTICE GUIDELINE: Penetrating Neck Trauma

STANDARD:
Provide guidelines for the management of a penetrating injury to the neck, specifically as it relates to the need for operative exploration and the ordering of diagnostic studies.

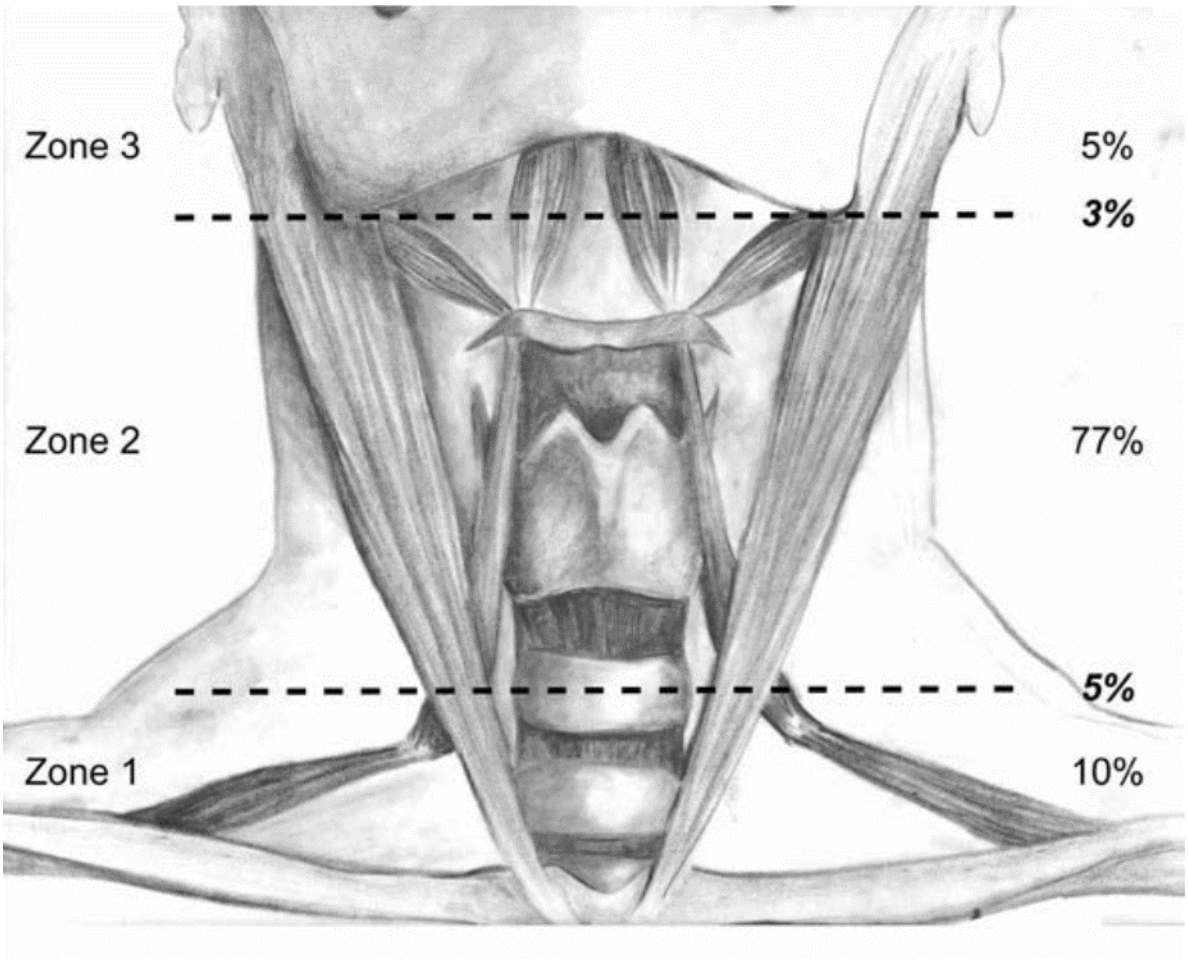
DEFINITIONS:
None.

GUIDELINES:

- Do not deviate from ATLS protocol
- EARLY intubation is key. Emergency cricothyrotomy or tracheostomy may be complicated by release of contained hematoma with potentially disastrous consequences. Proceed only in extremis

1. If the neck injury is associated with any of the following conditions, then the patient should be taken immediately to the operating room for exploration:
   a. Shock.
   b. Active hemorrhage.
   c. Expanding hematoma.
   d. Zone II penetrating injury (thru the platysma)
   e. Need for surgical airway.
   f. Obvious esophageal injury.
   g. Obvious tracheal injury.

2. If the platysma has been violated, then classify the wound as:(see picture with frequency)
   a. Zone I – below cricoid cartilage.
   b. Zone II – between cricoid and angle of the mandible.
   c. Zone III – above the angle of the mandible.
   d. An X-ray of the neck may be helpful if a bullet or foreign body is still in the neck



3. For STABLE Zone I injuries (which are really chest injuries):
   a. Obtain a chest X-ray to determine the presence of chest injury.
      i. Obtain an angiogram or CTA, including the aortic arch and the great vessels.
      ii. Obtain an esophagram. (Gastrograffin and if no defined leak proceed to thin barium for better definition)
      iii. Obtain or perform bronchoscopy.
   b. Obtain CT scan to determine track of bullet
   c. If track approaches vessels or airway, then will need an angiogram and bronchoscopy
   d. Treat on the basis of the findings.

4. For a Zone II injury, use clinical findings to classify as low probability of vascular and aerodigestive injury or high probability of vascular and aerodigestive injury.
   a. For high probability injuries (GSW, shotgun wounds, swelling, path crossing midline):
      i. If the injury is a gunshot wound or a shotgun injury, consider a CT angiogram to help define extent and location of vascular injury if the patient is stable. In many cases this step is skipped since vascular injury is likely.
   ii. Prophylaxis with antibiotics.

iii. Take to the operating room for neck exploration.

b. For low probability injuries (stab wounds, minimal swelling, lateral, posterior). Obtain CTA scan and look for injuries to vital structures. If found and obvious then explore, otherwise:
   i. Obtain esophagram or EGD.
   ii. Perform laryngoscopy and bronchoscopy if indicated (e.g., air in tissues or subcutaneous emphysema).
   iii. Treat based on the findings.

5. For Stable Zone III injuries:
   a. Obtain angiogram.
   b. Obtain or perform direct pharyngoscopy, laryngoscopy if injury suspected.
   c. Treat based on findings.

MONITORING PERFORMANCE IN PI PROGRAM

No specific PI indicator currently on this.

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