AirLink CCT

Tension Pneumothorax/Chest Dart Procedure

Objective:

1. To maintain ventilation, oxygenation and hemodynamic status.
2. To identify the presence of a tension pneumothorax and treat appropriately.

History:

1. Mechanism of injury (blunt or penetrating injury)
2. Positive-pressure ventilation
3. Pre-existing lung disease

Assessment:

1. Shock
2. Respiratory distress
3. Decreased BS on the affected side
4. Distended neck veins
5. Tracheal deviation, to the opposite side
6. Increased resistance to positive pressure ventilation
7. Asymmetrical chest rise

Management:

1. If deteriorating patient condition due to diagnosed (or suspected) tension pneumothorax, decompress the affected side of the chest using needle thoracostomy (chest dart).

Procedure:

1. Select affected side, 2nd intercostal space, mid clavicular line.
2. Cleanse site with antiseptic
3. Insert 10-14 gauge needle perpendicularly, advancing over the superior aspect of the 3rd rib.
4. Attempt to aspirate with an attached syringe as you advance.

A. if under tension, air will fill the syringe.

B. if blood is aspirated, consider hemothorax.

5. Advance catheter and remove needle and syringe.
6. Attach Heimlich valve and secure to patients chest.
7. Auscultate BS FREQUENTLY
8. Monitor Sp02, cardiac rhythm, clinical status, and if intubated, End Tidal C02.

References:

1. ASTNA Patient Transport Principles and Practice, Fourth Edition. 2010
2. Trauma, Seventh Edition. 2013
3. Emergency Medicine Manual, Sixth Edition. American College of Emergency Physicians, 2010

Revised 1/2013