

UMF Protocol

Aims

Adapted basic care in a polytrauma patient with compressive pneumothorax.

Initial medical evaluation

Patient agitated

- GCS: 4, 6, 5
- Moist skin, piloerection
- Free airway, possible phonation
- Trachea deviated to the left
- Superficial, rapid breathing with accessory musculature
- Tympanism during percussion of the right hemithorax, subcutaneous emphysema

Secondary medical evaluation

Inspection

- Examination of the throat and thorax: trachea deviated to the left
- Respiratory pattern: right hemithorax not removable
- Palpation: subcutaneous crepitations,
- Percussion: tympanism
- Auscultation: respiratory silence on the right side
- Ultrasound: Bar-code pattern, sign of the stratosphere on the level of the hemithorax dr.

Treatment

- ABCDE assessment of the patient - PRIMARY EVALUATION
- Simultaneous maneuvers:
 1. Basic monitoring: SpO₂, TA, EKG
 2. Venous pathway - at least 2 peripheral major venous catheters 14-18 G with initiation of volume resuscitation

3. Oxygen therapy - reservoir mask - FiO₂ as close as possible to 100%.

A - Airway - with protection of the cervical spine (cervical collar)

- Patency of the airway

- Immobilisation maintained during the evaluation

B - Breathing- Ventilation and oxygenation

Supported:

- Administration of oxygen in large quantities

- Administration of analgesics

- Emergency decompression of pneumothorax, needle puncture in space 2 ic, medioclavicular or in space 5 ic on the midaxillary line under local anesthesia beforehand

Establish the treatment plan for the next 24 hours

1. State of consciousness
2. Pupils
3. Neck: assess the cervical spine, need to maintain cervical collar, Rx evaluation.

Evaluate the anterior part of the neck

1. Thorax: assess the chest, inspection, palpation, percussion, pulmonary auscultation and heart. Ultrasound and Rx.
 - Thoracic drainage

Transport of the patient to the service of Rx

- Immobilization during transport

- Analgesia

Remarks

Differential diagnosis about the causes of acute respiratory insufficiency in polytrauma

Expert references and recommendations

ERC European resuscitation council guidelines for resuscitation 2015. Section 3. Adult advanced life support.

ERC - European resuscitation council guidelines for resuscitation 2015. Section 4. Cardiac arrest in special circumstances

SFAR - Société Française d'Anesthésie et de Réanimation

Advanced Trauma Life Support - American College of Surgeons

Textbook of Critical Care - J.L.Vincent et al., 2017, Elsevier