

## TRACHEOTOMY AND TRACHEOSTOMY:

**DEFINITION:** Is an opening in the tracheal ring to provide good ventilation from the outer environment to the trachea, this operation performed in different species of animal like **horse,cattle,dog ,and cat but difficult to done in the bull.** The operation can be done in both elective and emergency surgery.( **In an emergency situation, such as the animal in danger of suffocation, the surgeon may need to forget a complete aseptic preparation).**



In case of **permanent tracheotomy** there is a removal of part of the tracheal ring, and the cutting is going through the two adjacent tracheal ring and its annular ligament and the **tracheostomy** tube going or devices fixed for long time, while in case of the **temporary tracheotomy** the operation is just an incision in the annular ligament and the **tracheostomy** tube fixed for short time.

**INDICATION:**

- 1-Any obstruction (complete or partial) in the upper air ways passages,which interfere with the body ventilation
- 2-For experimental study and searching methods.
- 3-Prior to some operation which may be done in the upper respiratory tract or in the nasal passages.
- 4- Some time this operation may be done to remove foreign body from the trachea.

## **SURGICAL PROCEDURE:**

- The operation performed with the animal in the standing **position** (the best position) and the neck is extended with lateral deviation of the head.
- Type of **anesthesia** is performed with sedation and local infiltration of the surgical sites.
- The **site of the operation** is at the junction of the upper and middle third of the neck, at the fourth and sixth tracheal ring.
- **Preparation of the surgical sites**, by clipping and shaving, wash with soap and water, then disinfect the area.
- The **surgical incision** is going through the **skin and the subcutaneous** tissues by sharp dissecting (7-10cm length and 5 cm wide), stop the bleeding, then separate the **sterno thyro- hyoideus muscle** by bland dissecting, then cutting through the **fibrous tissue** which surround the trachea, exposed the **trachea** and cutting through the annular ligament or through the tracheal ring its self.

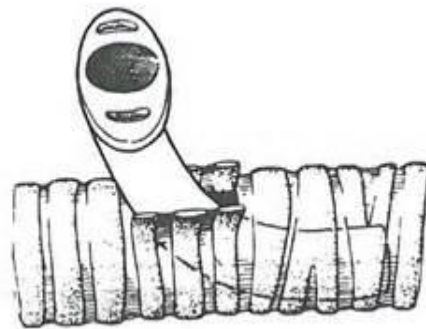
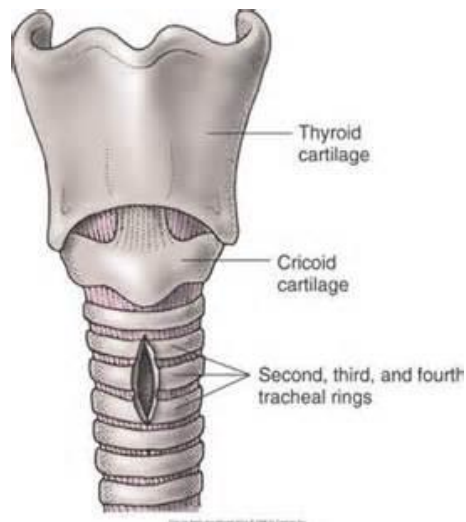
**For the temporary tracheotomy** (this operation is performed when you need when to lift a tracheostomy tube in place for short period of time).

- the scalpel is inserted in the midway between the two tracheal ring , the incision is made in horizontal direction 1 cm in either direction from the mid line
- then insert the tracheostomy tube and this method is used



**For the permanent tracheotomy** (this operation is performed when you need to place the tracheotomy tube for long period of time).

- half moon shaped section of one tracheal ring is cut through
- then the same cutting in the adjacent tracheal ring
- inserts the Jones tracheotomy tube



**The incision is not closed, and the wound heal by secondary intention when the tracheotomy tube is removed.**

#### **Post Operative Management:**

- Site of operation should be cleaned with normal saline.
- Suitable and non irritant antibacterial ointment once or twice daily applied.
- Clean the tube once or twice daily.
- Cover the tube when animal stable is dusty or dirty.
- Protect the tube from the friction with door or wall.

#### **Complication:**

- Subcutaneous emphysema.
- Tracheal stenosis.
- Bleeding.
- Adhesion.
- Respiratory affection.
- Abscess formation.