

Percutaneous Tracheostomy

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INTRODUCTION

Percutaneous tracheostomy (PT) has gained an increasing acceptance as an alternative to the conventional surgical tracheostomy (ST). In experienced hands, and with proper patient selection, it is safe, easy and quick. Percutaneous tracheostomy has become a well-established procedure on the intensive care unit (ICU) for patients requiring prolonged invasive mechanical ventilation (MV). Tracheostomy offers a number of potential benefits such as increased patient comfort, reduced sedation requirement, and a decrease in dead space, all of which may aid the weaning process.

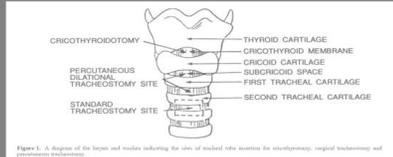


Optimize neck position for access (a pillow beneath the shoulders will help extend the head), patient is cleaned and draped



Pull back the tracheal tube under direct vision and hold it so the tip of the tube lies superior to the operative site (cuff lies within or above the larynx)

Anatomical landmarks are identified



Percutaneous Tracheostomy Kit

Main Components

1. Percutaneous entry needle
2. Catheter Access Needle
3. Syringe
4. Scalpel with blade
5. Guidewire with Positioning marks
6. Dilator
7. Tracheostomy guiding catheter
8. Hydrophilic-coated Percutaneous Tracheostomy Dilator
9. Tracheostomy loading catheter
10. Tracheostomy tube

STEPS DURING PERCUTANEOUS TRACHEOSTOMY

After giving local anesthesia, skin incision is made and the pre-tracheal tissue is cleared with blunt dissection (Figure A)

Operator enters the tracheal lumen below the second tracheal ring with an introducer needle with all aseptic precautions under bronchoscopic vision

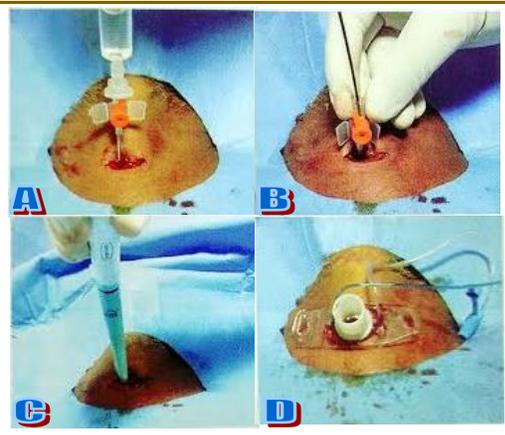
Guide wire is inserted through introducer needle (Figure B)

The tract between the skin and the tracheal lumen is then dilated with single tapered dilator (STD) (Figure C)

A tracheostomy tube is placed over white - guiding catheter and guide wire assembly (Figure D)

Placement of the tube is confirmed again by visualizing the tracheo - bronchial through bronchoscope

Tube is secured to the skin with sutures and the tracheostomy tape



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Access this article online

Quick Response Code:



Website:
www.annals.in

DOI:
10.4103/0971-9784.197854

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How to cite this article: Mehta Y, Mehta C. Percutaneous tracheostomy. Ann Card Anaesth 2017;20:121.

Received: December, 2016. **Accepted:** December, 2016.