A SIMPLE TECHNIQUE: EXTERNAL LIGHT GUIDANCE FOR PERCUTANEOUS DILATIONAL TRACHEOTOMY.

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Abstract

Objective: Percutaneous dilational tracheotomy (PDT) is a commonly used technique to establish an airway in cases of difficult airway management. While the Ciaglia Blue Rhino technique and its modifications continue to be widely used, the Ciaglia technique requires a blind needle placement into the trachea. The Ciaglia technique is considered the gold standard for PDT, but the external illumination assists visualization of the tracheal wall during needle insertion.

Methods: A retrospective review was performed of 15 consecutive patients who underwent PDT using the Ciaglia technique with the external light guidance technique. The external light guidance technique uses a light guide, which is placed on the trachea and provides illumination during needle insertion. The light guide is inserted through a small incision in the skin, and the light is directed towards the trachea. A prophylactic tracheostomy tube is placed through the incision, and the tracheostomy tube is advanced into the trachea. The endotracheal tube is then inserted through the tracheostomy tube.

Results: Fifteen consecutive PDTs were performed by a single surgeon (IHE) using the external light guidance technique. The external light guidance technique allowed for accurate needle placement into the trachea, and the endotracheal tube was advanced into the trachea without any complications. The external light guidance technique significantly reduced the risk of complications associated with PDT, such as tracheal stenosis and accidental extubation.

Discussion: The external light guidance technique allows for visualization of the tracheal wall during needle insertion, which can significantly reduce the risk of complications associated with PDT. The technique is simple, safe, and effective, and it can be easily performed by any surgeon performing PDT.

References