

INTRODUCTION: Tracheal injury is rare but can be terrifying for the treating physician especially when it requires emergency procedures such as intubation. This is a case of a penetrating tracheal injury and the airway management.

CASE DESCRIPTION:

A 32 year old gentleman was brought to the emergency department (ED) due to fall from a height of 20 feet onto a 'besi cerucuk' that caused a deep wound to the anterior neck exposing the trachea.



Examination revealed a stable patient with a respiratory rate (RR) of 20 and SPO2 of 99%. Patient deteriorated, became tachypneic with RR of 30 and noted bubbling from the wound site. Other primary survey was normal. Airway was secured with an endotracheal tube (ETT) sized 6 through the tracheal defect. Post intubation, patient was able to saturate with a SPO2 of 100%. Patient was transferred to a tertiary center for tracheal repair and tracheostomy without complications. An urgent CT Neck reported, ETT seen traversing through the skin defect and piercing the trachea at the level of T2/T3. Patient was discharged well post surgery after 13 days of admission.

DISCUSSION: Penetrating neck injuries consist of 5-10% of cases presenting to the emergency department (1). As soon as the patient presents to the ED a rapid assessment of the airway, breathing and circulation is essential. Literature suggest assessment of the airway, looking for hard and soft signs of tracheal injury for definitive airway management as there is risk of rapid progression of edema. (2). Superior methods such as fiberoptic intubation might not always be feasible in the acute trauma setting. Published case reports have shown success rates with intubation through the tracheal defect as depicted in the case presented above and other published report (3). The physician should be prepared that if the airway is partially obstructed secondary to an injury, it can be converted to a complete transection by performing endotracheal intubation. The transected end of the trachea could be identified and an ETT inserted through it to temporarily maintain a patent temporary airway before definitive surgical repair (3).

CONCLUSION: Penetrating neck injury is rare but it constitutes an airway emergency. The treating physician should be prepared and can attempt direct intubation through the tracheal defect after proper assessment in such cases.

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