4-year-old presented from an outside hospital with GSW to the neck with suspicion of spinal cord injury and small anterior tracheal tear. He was intubated in the field and had been relatively stable over past 2 hours. Ventilation was assisted en route to OR. Inhalation induction was performed through the ETT and rocuronium was given. Tidal volumes declined precipitously and ventilation became impossible. The ENT quickly entered the neck as the patient began to desaturate. The ENT observed a complete transection of the extrathoracic trachea with the end of the ETT outside the proximal end of the transection. ENT was able to gain control of the distal tracheal segment (20mins later, during which time ventilation was minimal and intermittent), which had retracted into the mediastinum. ETT was placed through the distal end and ventilation became feasible.

VV ECMO established because of the difficulty controlling the distal tracheal segment and concern for airway loss during the ensuing repair. An esophageal tear was repaired primarily. The trachea was then repaired and an oral endotracheal tube was placed past the repair in a retrograde fashion. The patient was transferred to the PICU on ECMO.

**CONSIDERATIONS**

- If a pneumothorax exists, decompression may lead to tracheo- or broncho-pleural fistula
- Distal tracheal segment may retract into thorax necessitating sternotomy or thoracotomy for airway control (thoracic surgery present?)
- Concomitant esophageal, cervical spine, and vascular injuries are likely (cautious positioning)
- Ideally, intubation should be done by passing a fiberoptic bronch beyond distal tracheal segment
- Tracheostomy may be best option
- Spontaneous ventilation should be maintained until tube placement past distal segment is confirmed

**REFERENCES**


**CONCLUSIONS**

Unrecognized tracheal transection:
- A stable situation can deteriorate suddenly
- An intubated trachea does not ensure a secure airway
- In the face of difficult airway establishment, ECMO may provide a temporizing situation while tracheal repair is undertaken

**CASE PRESENTATION**

4-year-old presented from an outside hospital with GSW to the neck with suspicion of spinal cord injury and small anterior tracheal tear. He was intubated in the field and had been relatively stable over past 2 hours.

Ventilation was assisted en route to OR. Inhalation induction was performed through the ETT and rocuronium was given. Tidal volumes declined precipitously and ventilation became impossible. The ENT quickly entered the neck as the patient began to desaturate. The ENT observed a complete transection of the extrathoracic trachea with the end of the ETT outside the proximal end of the transection. ENT was able to gain control of the distal tracheal segment (20mins later, during which time ventilation was minimal and intermittent), which had retracted into the mediastinum. ETT was placed through the distal end and ventilation became feasible.

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**A MISLEADING INJURY**

Perioperative management of tracheal transection is not well established--not commonly survived pre-hospital--difficult to diagnose--not an uncharted airway

As in our case, it is not uncommon for the initial intubation attempt to create a false passage from the proximal tracheal segment to outside the distal segment, and if encased by peritracheal tissue and mediastinal pleura, the patient may maintain sufficient oxygenation and ventilation, thereby concealing the false intubation.