Title	Intra-Thoracic, Complete Tracheal Transection. A Case Reviewed
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Abstract:

Tracheal transection can be classified into two groups, either penetrating or non-penetrating. Non-penetrating tracheal transection can further be subdivided into two groups those above the clavicles(extra-thoracic) and those below(intra-thoracic). The significance may seem trivial but in fact there is a much higher survival rate in extra-thoracic cases than intra-thoracic. The rational for this is simple, cases involving transection intra-thoracicaly are usually accompanied by injuries to other organs and major vessels. Due to the high mortality rate in the field, these cases seldom present to the anesthesiolgist and surgeon. In the rare event of such a case it is imperative to be familiar with the management and potential dilemmas that may present themselves. Familiarity with the use of a flexible bronchoscope cannot be over-emphasized and should be a part of every anesthesiologists training. Perioperative and intra-operative management will be outlined.

We will discuss a case of intra-thoracic, non-penetrating, complete tracheal transection in a 44 year old woman sustained in a motor vehicle accident. The female in this case was a restrained passenger in a head on motor vehicle accident. She was an otherwise healthy patient with the exception of treated and stable schizophrenia She did, however, test positive for cocaine on the night of this incident.

She arrived by life flight from her local hospital seventeen hours after the initial accident. She was noted in the field to deteriorate from a Glascow coma scale of 13 to obtundation with a minimum score of 3. Paramedics in the field attempted to intubate the patient but were unsuccessful and oxygen saturations of 70-80 s were noted minutes prior to arrival at the local hospital. Once at the hospital intubation was attempted and noted as successful with saturations now recorded in the 90 s. Nursing personnel and the emergency room physician noted sternal crepitus and movement of all four extremities to pain, no posturing was noted. Computed Tomographic scans were performed and a cervical fracture was noted along with bilateral pneumothracese. According to the records the patient was taken to the operating room where a thoracotomy was performed and chest tubes were placed. At this time records reveal very little but the decision to have her flown to Stanford M! edical Center was made. The patient was in a halo for neck stability.

Once at Stanford, initial review of her CT s and physical exam revealed a complete intrathoraxic transection of her trachea with what appeared to be a parifascial plain of tissue that acted as a conduit between the proximal and distal portions of the trachea. The patient was also noted to have crepitus that extended from her sternum all the way up into the first half of her neck. The patient was on a ventilator with peak pressures not exceeding 40mmHg with 50% oxygen and saturations in the 90 s with normal appearing blood gases.

The management of the above patient will be outlined in greater detail with attention to intra-operative management.