

Suicidal Cut Throat Injury

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Abstract

Suicidal cut-throat injuries are either unreported or rare. Cut-throat injury patients may present with airway compromise, aspiration, and acute blood loss with hypoxemia if major blood vessels are involved. They pose initial management challenges in the casualty and for the anaesthesiologists in securing the airway. They may be fatal if timely intervention is delayed. We are reporting a case of suicidal injury to throat with an axe leading to an open larynx with associated injury to left submandibular gland.

Keywords: Suicidal, Cut Throat, Tracheostomy, Thyrohyoid Membrane, Indirect Laryngoscopy

Introduction

Incised wounds of neck can be accidental, homicidal or suicidal whereas lacerated wounds are rarely suicidal in nature.⁽¹⁾ Suicidal and homicidal injuries to the neck are mostly caused by sharp edge weapon. Accidental ones are usually caused by foreign objects such as metal or glass so usually do not result in extensive collateral tissue damage.⁽²⁾ Evaluation and management is complicated due to dense concentration of vital, vascular, aerodigestive and nervous system structures. A good team consisting of anaesthetists and ENT surgeons is required to prevent catastrophic airway, vascular or neurologic sequelae. Injury to the major vessels (Carotid artery and jugular vein) may be fatal.

Case Report

A 45 year old male was admitted in our emergency with alleged history of self-inflicted cut throat injury. He had a 10cm x 4cm incised wound on the upper part of neck with profuse salivary discharge and fresh bleeding from the wound site. There was no injury to any major vessels. There was no respiratory distress on sitting up; but on lying down patient became dyspnoeic. He was given intravenous fluids, blood and intravenous antibiotics on admission. The patient was shifted to emergency operation theatre. The wound could not be properly examined as extension of neck led to severe respiratory distress. The anaesthetists examined him and introduced the endotracheal tube through the larynx via the open neck wound. After securing the airway, tracheostomy was done to maintain air passage away from the operative site.

General anaesthesia was given through the tracheostomy stoma and wound was examined. The cut was infrahyoid at the level of thyrohyoid membrane. It was involving the strap muscles of both sides. The hyoid bone was intact. The epiglottis, thyroid cartilage and cricoid cartilages were intact. Piriform fossae on

both the sides could be seen through the wound. Vocal folds were examined and were found grossly normal. Thyrohyoidopexy was done to close the laryngeal wound. The submandibular gland on left side was found lacerated with no injury to the duct. It was stitched and left in situ. The strap muscles were repaired. The skin wound was closed with drains put on both side.

The drains were removed on 3rd postoperative day. Patient could whisper all the time but started speaking on the 6th day after placing finger on the tracheostomy tube. Indirect laryngoscopy was done on 7th day. Both vocal cords were mobile. Stitches were removed by 10th postoperative day. Decannulation was done on 11th postoperative day. Patient was discharged on 12th postoperative day with normal phonation.



Cut Throat Injury



Post operative picture with tracheostomy stoma on 10th post operative day

Discussion

The management of throat injuries requires a multidisciplinary approach.⁽³⁾ The purpose of this report is to emphasize that suicidal cut -throat injuries do occur in our environment and there is a need for the collaboration of the otolaryngologist, anaesthesiologist and psychiatrist in the effective management of these patients.⁽⁴⁾ Ways must be found to identify people in society without mental disorders who are at risk of suicidal behaviours. Suicide is a known worldwide leading cause of death with psychiatric illnesses listed among the strongest predictors.⁽⁵⁾ Other predictors listed are familial troubles and poverty.⁽⁶⁾ These were the factors present in our case.

Anatomically, the neck can be divided into three major zones for surgery according to Monson's criteria (Zone I: from the clavicles to the cricoid cartilage; zone II: from the inferior margin of the cricoids cartilage to the angle of the mandible; and zone III: from the angle of the mandible to the base of the skull.^(7,8)

The leading cause of death from neck injuries is haemorrhage from vascular structures⁽⁹⁾ which was not present in our patient. Management of the airway was executed by a tracheostomy through which anaesthesia was administered to effect proper surgical repair of the severed anterior neck structures. The possible mechanism for carotid sparing in our patient would be the backwardly thrown head at the time of injury which is likely to draw the carotid sheath backwards. Radiography alone is not sufficient for diagnosing cervical airway trauma and additional use of CT scan and MRI may be very useful for discovering subtle, previously undetected injuries. But definitive airway management should not be delayed excessively by radiological studies since an apparently stable airway can rapidly progress to an acute airway obstruction.⁽¹⁰⁾ This was the reason why we did not subject our patient to any radiographic or imaging procedure. Many patients with upper airway injuries may be successfully managed using traditional techniques to establish an

airway-intubation through an obvious defect or endotracheal/orotracheal intubation or tracheostomy.

Conclusion

Securing the airway should be the first priority. If patient is unstable, urgent endotracheal intubation or tracheostomy should be done. A meticulous repair of the wound with strict watch on the vitals of the patient can save the life of the patients.

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