

Self-inflicted Cut-throat injury as Suicide Attempt: Management Challenges and outcome in a Tertiary Hospital in Northern Nigeria: A Case Report.

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ABSTRACT

Background: Self-inflicted cut-throat injuries represent rare but potentially fatal emergencies requiring urgent multidisciplinary intervention. These cases pose significant challenges in terms of the multi-level management, including emergency care, definitive treatment, prevention of sequelae, psychiatric management and overall rehabilitation. **Objective:** To highlight the occurrence of this rare condition, to outline the treatment and the need for improvising of laryngeal stenting in resource constraint setting. **Case Summary:** We report the case of a 40-year-old male police sergeant who presented with a severe self-inflicted anterior neck injury, following a suicide attempt. On examination, he was restless, in painful distress, pale with blood-soaked cloths and generally looked unkempt, Examination of the neck revealed a 12-cm transverse wound extending across the anterior neck, with deeper penetration on the right side, involving complete transection of the thyroid cartilage, near-amputation of the epiglottis, and laceration of the hypopharynx. The wound had irregular, ragged edges. Other examination was unremarkable. Emergency tracheostomy was carried out, followed by staged laryngeal and hypopharyngeal reconstruction with an improvised laryngeal stenting by Naso-tracheal intubation kept in place for two weeks. Psychiatric evaluation and treatment were also instituted. Complete functional recovery was achieved within six weeks, with successful decannulation and return to normal swallowing and phonation. Two years post treatment, he was in a physical and psychologically satisfactory condition. **Conclusion:** Early airway management, meticulous surgical repair, and comprehensive psychiatric care are essential for optimal outcomes in suicide attempts with self-inflicted cut-throat injuries. Innovative use of available materials in resource-constrained environments can achieve satisfactory outcome.

Key words: Cut-throat injury, self-inflicted cut-throat, suicide attempt.

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Introduction

Cut-throat injuries represent potentially life-threatening emergencies, and self-inflicted injuries are rarely encountered in otolaryngology practice. While most anterior neck injuries result from accidents or assault, self-inflicted injuries are uncommon but carry significant morbidity and mortality risks.¹ These injuries typically occur in the context of psychiatric illness, substance abuse, socioeconomic stress, or relationship conflicts.²

The anatomical complexity of the neck, with its concentration of vital structures including the aerodigestive tract, major blood vessels, and neural pathways, makes cut-throat injuries particularly challenging to manage. Management of cut-throat injury requires multi-disciplinary approach with collaboration of otorhinolaryngologist, anesthetist and psychiatrist.³ The neck being divided into three zones aid for quick identification of structures likely affected by injuries, management approaches and

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prognosis. Zone I is the region of the neck between clavicle/sternum to the cricoid cartilage; Zone II is the region from cricoid cartilage to the angle of mandible while Zone III is region from angle of mandible to the base of skull.⁴ The severity of injury depends on the depth of penetration and specific structures involved. Immediate threats to life include airway compromise, hemorrhage, and aspiration. Emergency management priorities include airway management, hemorrhage control, and evaluation for associated injuries.⁵ Long-term management requires coordination between otolaryngologists, psychiatrists, nutritional and speech therapists to address physical injuries, functional loss and underlying psychological factors. This case report highlights the successful management of self-inflicted cut throat injury in a resource-limited setting, emphasizing the importance of early intervention and multidisciplinary care.

CASE PRESENTATION

A 40-year-old male police sergeant who presented to our emergency department of National Ear Care Centre, Kaduna, Nigeria from a tertiary institution where he had resuscitation instituted. He presented to our hospital on self-referral, on 11th of September, 2023, after sustaining a self-inflicted anterior neck injury using a kitchen knife with his right hand, four hours prior to presentation, following a quarrel with his neighbors. He was living in Kaduna city, of Kaduna state and was physically and psychologically healthy prior to that incident. He experienced significant bleeding initially, which had ceased by the time of presentation. He had complete loss of voice and audible air leak through the wound. There was history of dizziness, irrational talk and restlessness, there was no loss of consciousness, convulsion or injury to other parts of the body. It was the first time of deliberate self-harm. The patient's social history revealed he was single, hot tempered with a significant smoking and alcohol consumption habit. He denied illicit drug use and had no known personal or family history of psychiatric illness. On examination at presentation, the patient appeared restless and mildly pale but was hemodynamically stable with oxygen saturation of 98% on room air. Examination of the neck revealed a 12-cm transverse wound with irregular, edges

extending across the anterior neck, with deeper penetration on the right side (despite being right-handed). Direct visualization through the wound revealed complete transection and shattering of the thyroid cartilage; near-complete amputation of the lower third of the epiglottis; laceration extending into the hypopharynx; exposed upper tracheal rings; no active bleeding at the time of examination and no other injuries were identified on systematic examination.



Fig. 1: picture at presentation, showing the extensive neck injury.



Fig. 2: Clinical photograph demonstrating the severity of the self-inflicted cut throat injury with visible laryngeal framework damage and the 12-cm transverse wound in the operating theatre.



Investigations

Laboratory investigations including complete blood count, serum electrolytes, random blood sugar, were all within normal limits. Retroviral screening was negative. X-ray soft tissue neck showed soft tissue, laryngeal framework injury and emphysema. Chest X-ray was essentially normal.

Treatment

Emergency airway management was immediately prioritized. Given the extensive laryngeal damage and risk of airway compromise, an emergency tracheostomy was performed under local anesthesia. A size 8 cuffed tracheostomy tube was inserted, securing the airway.

A nasogastric tube was inserted for enteral feeding, given the extensive pharyngeal and laryngeal injuries. He was placed on intravenous antibiotics and analgesics.

On post-injury day eleven, definitive surgical repair was undertaken when tissue edema had subsided and patient's general condition had improved although the current literature advocates repair within 24 hour when there is mucosal breach.⁶ The procedure involved: Debridement of devitalized tissue; Primary repair of the hypopharyngeal laceration using vicryl sutures; Reconstruction of the thyroid cartilage framework and repair of the epiglottis was done using vicryl 1 suture; because of imminent post-trauma laryngotracheal stenosis, Naso-laryngeal stenting using a modified endotracheal tube to maintain laryngeal architecture during healing was carried out, the tube was anchored with silk 2 suture at the columella. Corrugated rubber drain was introduced to the surgical wound and secured with silk 2. The skin was closed with nylon 3/0.

The surgical repair done is as illustrated below, showing the reconstruction of the damaged structures.



Fig. 3: Immediate post repair in the theatre with drain in situ.

The patient was referred to a tertiary Neuropsychiatric Hospital on post-injury day 2 for comprehensive psychiatric evaluation. Assessment revealed acute stress reaction with depressive features. He was placed on antipsychotic medication and supportive psychotherapy.

Recovery and Follow-up

The patient remained stable throughout his hospital stay. Wound care was provided for four weeks. Oral feeding was gradually reintroduced, beginning with clear fluids on day 21, progressing to a normal diet by day 28.

Decannulation of the tracheostomy tube was successfully achieved at six weeks post-injury after confirmation of adequate laryngeal healing and airway patency. Voice quality was assessed satisfactory despite residual mild hoarseness. Swallowing function was normal.

The patient was discharged at eight weeks and returned to active duty after four months. At two years follow-up, he remained psychiatrically stable with no voice or swallowing complaints. See fig. 4 for picture.



Fig. 4: Two years post operative picture showing satisfactory self-inflicted injury and tracheostomy scars.

Discussion

The incidence of self-inflicted cut-throat injuries in Nigeria appears low based on available literature, though under-reporting may contribute to this apparent rarity. There are various triggers for self-inflicted cut-throat injuries such as lack of job, marital issues, psychiatric illness. Iseh *et al* and Adoga *et al* reported similar cases in Nigeria.^{6,7} Kumar *et al* reported two similar cases of self-inflicted cut throat injury.⁸



Globally, cut-throat injury accounts for approximately 5-10% of all traumatic injuries, with multiple structures being injured in about 30% of the patients. According to Roon and Christensen's classification, neck injuries are classified into three anatomical zones (I-III). Risk of injuries in the three zones are different, with zone II being the commonly affected (more than 60% of cases), this because unlike zone I and III, it is not protected by bones. The wounds may be superficial or deep depending on the mechanism and type of injury.¹⁰

The index case had injury in Zone II (supra-glottis), which contains vital unprotected structures including the larynx, pharynx, esophagus, and major vessels.⁴ Zone II injury is the commonest, however it is amenable to safer neck exploration than the other zones, the two patients reported by Kumar *et al* both had zone II injuries.⁸

The initial management priority in cut-throat injuries is always airway assessment and control as reported in various publications.⁷⁻¹⁰ In our case, emergency tracheostomy was performed due to the extensive laryngeal damage and inability to secure the airway through conventional intubation. This approach is consistent with established protocols for severe laryngeal trauma. Both cases by Kumar *et al* also had tracheostomy done, however unlike our study they didn't require laryngeal stenting, and they decannulated their patient earlier than in our case, the difference may be due to different degree of injury.⁸ A novel aspect of our management was the use of a modified endotracheal tube as a Naso-laryngeal stent. This improvisation was necessitated by the unavailability of commercially manufactured laryngeal stents. The technique proved effective in maintaining laryngeal architecture during healing, contributing to the excellent functional outcome. Soni *et al* used an Oro-tracheal tube as a laryngeal stent following gunshot injury, in their case report the stent was removed at 7th day post op and patient decannulated 15 days post-op.⁹

The delayed primary repair strategy employed in this case proved successful. Immediate repair attempts failed due to tissue edema that limited surgical exposure. Delayed repair, allowed for tissue stabilization and better visualization of anatomical structures, facilitating more precise reconstruction.^{11,12}

The multidisciplinary approach involving otolaryngology and psychiatry was crucial for

comprehensive patient care. Psychiatric evaluation revealed underlying stressors and mental health issues requiring specific intervention. The combination of pharmacological and psychological treatment was essential for preventing recurrence.

Functional outcome in this case was satisfactory, with preservation of voice and swallowing function. This outcome emphasizes the importance of early intervention and careful surgical technique in laryngeal repair.

Self-inflicted cut throat injuries, though rare, require immediate multidisciplinary intervention to optimize outcomes. Key management principles include priority airway management, careful surgical reconstruction, and comprehensive psychiatric care. In resource-limited settings, improvisation using available materials can achieve excellent functional results. Early intervention and collaborative care between surgical and psychiatric teams are essential for both immediate survival and long-term recovery.

The case highlights the importance of maintaining high clinical suspicion for underlying psychiatric disorders in patients presenting with self-inflicted injuries with suicidal attempts and ensuring appropriate mental health support to prevent recurrence.

Limitations and Challenges

Management in resource-limited settings presents unique challenges including limited availability of specialized equipment and materials. However, this case demonstrates that innovative use of available resources can achieve satisfactory outcomes.

Conclusion

Conclusion: Early airway management, meticulous surgical repair, and comprehensive psychiatric care are essential for optimal outcomes in suicide attempt with self-inflicted cut throat injuries. Innovative use of available materials in resource-constrained environments can achieve satisfactory outcome.

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References

1. Adebola SO, Ologe FE, Ogunkeyede SA, Adedayo GA, Ogundoyin OA. Penetrating anterior neck injury: A multidisciplinary approach. *IOSR J Dent Med Sci.* 2014;13(4):20-24.
2. Anas M, Manan R, Khan ZM. Understanding the mode and factors influencing cut-throat injuries in a tribal dominated population in Eastern India. *Cureus.* 2023; 15(9): e45481. Doi: 10.7759/cureus.45481
3. Chappidi AK, Chilikuri A. A study of incidence, causes and management of cut throat injuries. *Int J otorhinolaryngol Head and Neck surg.* 2018; 4(3): 636-643. Doi: <http://dx.doi.org/10.18203/issn.2454-5929.ijohns20180970>
4. Monson DO, Saletta JD, Freeark RJ, Carotid vertebral trauma. *J trauma* 1969;9:987-999.
5. Onotai LO, Ibekwe U. The pattern of cut throat injuries in the University of Port Harcourt Teaching Hospital, Port Harcourt. *Niger J Med.* 2010;19(3):264-266.
6. Iseh KR, Obembe A. Anterior neck injuries presenting as cut throat emergencies in a tertiary health institution in north western Nigeria. *Niger J Med.* 2011;20(4):475-478.
7. Adoga A.A, Nuhu D.MN : Management of suicidal cut throat injuries in a developing nation: three case reports. *Cases Journal* 2010 3:65.
8. Kumar A, Abdul K, Kumar A, Anwer A, Kumar K, Kumar D et al. Self-inflicted cut throat injuries in psychiatric patients during COVID-19 pandemic: A report of two rare cases. *Bull Emerg trauma.* 2025;13(2): 115-122. Doi:10.30476/beat.2025.105222.1563
9. Soni KD, Arasu T, Agarwal R, Gera S. Laryngeal stenting- unique use of an endotracheal tube in a case of gunshot injury neck. *Journal of medical society.* 2024; 38(2): 151-153. Doi: 10.4103/jms.jms_23_23
10. Bakari A, Shuaibu IY, Usman MA. Management of severe cut throat injury in Zaria, Nigeria. *Arch Int Surg* 2016; 6:133-5.
11. Dimick AR. Delayed wound closure: Indications and techniques. *Annals of emergency medicine.* 1988; 17(2):1303-1304.
12. Nazzal M, Osman MF, Albeshri H, Abbas DB, Angel CA. Wound healing. In Brunnicardi FC et al *Schwartz's principle of surgery* 11th ed. Publisher Mc Graw Hill education. 2019; 2: 271-303.

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