

CLINICAL STUDY OF CUT-THROAT INJURIES OF NECK

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ABSTRACT

Cut-throat injuries are potentially dangerous and require emergency treatment. These may be homicidal, suicidal or accidental. Now a days cut throat injuries are increasingly managed by ENT surgeons. Management protocol include detailed clinical examination, assessment of depth of injury confirmed by radiological examination with CT scan. Treatment of shocks are critical.

CONCLUSION: Patients with cut injury to larynx and trachea needs emergency tracheostomy. It enables surgeons to primary repair the wound and rest to larynx and healing of wound. Injury to pharynx and esophagus managed with ryle's tube feeding.

KEYWORDS : Cut throat, tracheostomy, larynx, hypopharynx.**INTRODUCTION**

Cut throat injuries of neck are potentially dangerous and require emergency treatment, location of injury can predict risk and potential life threatening in view of vital structures. Exposed larynx and hypopharynx, injury to blood vessels, hemorrhage, shock, air embolism, airway obstruction, asphyxia, aspiration of blood are common causes of death.

MATERIALS AND METHODS

Between August 2020 and September 2021, patients of all age groups and both sexes presenting with cut throat injury at causality were taken up for study in the department of ENT. All cut throat injuries were open wounds, resuscitated and primary repair done. Level of cut injury, injury to airway length and depth, damage to air and food passage were observed and examined in emergency operation theatre.

Here, we report a series of 10 cases of which five were suicidal, three were homicidal, one was accidental and one was RTA. In all the cases, emergency tracheostomy and primary repair, ryle's tube feeding, bloodtransfusion for shock attended, prognosis were good.

Case 1: History of illness

A 26 y/o male patient attended causality with self inflicted wound to the neck (Fig 1). Pt conscious and coherent PR: 65/min, BP: 90/60 mmhg, spO2: 90%. Incised wound 10*5 cm size in front of neck, injury to ribbon muscles, thyroid cartilage, injury to pharyngeal wall and hyoid bone exposed. Hesitation cut marks are seen. No injury to great vessels. Emergency tracheostomy and repair of larynx wound debridement and repair is done.

**Fig 1****Case 2: History of illness**

A 35 y/o male patient presented to causality with homicidal cut injury to neck (Fig 2). o/e patient is semiconscious with severe loss of blood. PR: 105/min, BP: 100/70, SPO2: 80%. Incised wound of 12*6 cm present in front of neck, injury to thyroid cartilage, hyoid bone and pharynx were noted. Emergency tracheostomy, primary wound closure and debridement done.

**Fig 2**
Case 3: History of illness

A 30 y/o male patient presented to casualty with self inflicted wound to the neck (Fig 3). o/e patient is conscious and coherent not in respiratory distress. Vitals: PR 60/min, BP: 100/60 mmhg, SPO2: 92 bpm. Injury to thyroid membrane, thyroid cartilage.



Fig 3

Case 4: History of illness

A female patient aged 55 years attended casualty with self inflicted injury to the neck (Fig 4). o/e pt. semiconscious with severe loss of blood. Vitals: PR 60/min, BP 90/60mmhg, SPO2 80%. A 10 cm long anterior neck laceration exposing the hypopharynx, injury to thyroid cartilage is noted. Patient was resuscitated with blood transfusion. Emergency tracheostomy, repair of larynx and wound closure is done.



Fig 4

Case 5: History of illness

A 35 y/o auto driver hit a divider and sustained cut injury to throat due to broken glass wind shield penetration (Fig 5). Attended casualty within hour of injury with severe blood loss, shock and airway obstruction. Horizontal wound 10*4 cm size in front of neck. Injury to thyroid cartilage, thyroid membrane is observed. Under local infiltration emergency tracheostomy done below the level of the wound. Under general anesthesia through the tracheostomy, cut injury explored, injury to superior laryngeal, external jugular attended. Debridement and primary wound repair done.



Fig 5

Clinical examination of neck

All cases of cut throat injury are open wounds and examined for air way obstruction and blood loss. Injury to strap muscles, injury to thyroid cartilage, hyoid bone, cricoid cartilage and trachea are examined. Injury to pharyngeal wall and esophagus are observed and confirmed in theatre. Vascular injuries are observed and confirmed in theatre.

Investigations

CBP-hb-11gm/dl, TC-8700 cells/mm³, DC-1-30, E-2, M-4, B-o, N-60, platelet count- 2 lakhs/mm³, BT-1 min 20 sec, CT- 2 min 4 sec. viral screening: HIV- non-reactive, Hbsag- non reactive, HCV- non reactive, BGT-B+, blood urea-0.6mg/dl, serum creatinine-26mg/dl, RBS-108 mg/dl, serum electrolytes- Na+ 135 meq/l, K+ 3.6meq/l, Cl- 10.meq/l; all cases investigated with CBP screening test, x-ray neck lateral, AP view, chest x-ray.

Surgical procedure

All cut throat injuries planned for emergency tracheostomy for airway obstruction. Patients with severe blood loss managed by volume expanders and compatible blood transfusion.

Wound debridement and primary repair done in anatomical planes. Vicryl is used for the mucosa of larynx, pharynx and esophageal wall. Silk used for cartilages of larynx. Care taken to preserve the function of larynx and pharynx during repair. Ryle's tube passed in all cases of pharyngeal and laryngeal injuries in operation theatre.

Post operative follow up

Immediate post operative period vital data monitored. Strictly advised not to extend the neck. Feeding through the ryle's tube. Cases followed and treated with iv fluids, antibiotics, analgesics. Regular wound dressing were done. Complications- wound dehiscence, hypovolemic shock, surgical emphysema, pharyngeal fistula.



Fig 6

DISCUSSION

Majority of cases are males (nine), one female. Average age of patients 20 to 40 yrs. Though homicidal is most common cause of cut throat injuries in our study suicidal is the most common cause. Homicidal three cases. Accidental one case. RTA one case. In our study most of them belong to low socio economic status. Majority of patients attended casualty with injury to larynx and laryngeal cartilages with hemorrhage. In penetrating neck injuries depth of wound carefully assessed by CT scan and x-ray before surgery.

CONCLUSION

Patients with cut injury to larynx and trachea need emergency tracheostomy. It enables surgeons to primarily repair the wound and rest to larynx and healing of wound. Injury to pharynx and esophagus managed with ryle's tube feeding. Management protocol includes detailed clinical examination, assessment of depth injury, confirmation by radiological examination with CT scan, treatment of shock are important.

REFERENCES

1. Miller RH, duplechainjk. Heridas cervical penetrantes. *Otolaryngol Clin Nam.* 1991.13-27
2. Penden M Macgee K, Sharma G, the injury chart book; A graphical overview of the global burden of injuries: Geneva; World health Organization. 2002.
3. Ladapo AA. Open injuries of the anterior neck. *Ghana Med J.* 1979;180182-186.
4. Duncan JAT. A case of severely cut throat injuries. *Br. J Anaesth* 1975.47.1327-1329. Gh Z Ahmed R, management of cut throat *J Otolaryngol* 2014.30.268-71.