



Cut Throat Injury: Etiology, Pattern and Management

Authors

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Abstract

Background: *Cut throat injuries are rare but they are clinically important because multiple vital structures are prone to injuries in the small, confined area and patient needs prolonged hospitalization. The aim of the study was to describe the etiology, patterns of injuries and management outcome of cut throat injuries.*

Methods: *This study was conducted at Maharani Laxmi Bai medical college for period of 12 months i.e from September 2017 to September 2018 and it was a combined retrospective and prospective study of cut throat injury patients.*

Results: *A total number of 20 patients with cut throat injuries were studied and most of the patient were from rural areas. Males were 12 and females were 8 in number. The average age of patients was 30 years (range 15 to 60 years).The most common cause of cut throat injuries was homicide, followed by accidental injuries. Interpersonal conflict was the most common factor for homicidal injury whereas road traffic accidents were commonly related to accidental injury and psychiatric illness most frequent cause of suicidal attempt. The most of the cases (13 out of 20 patients) presented with laryngeal injury. Surgical procedures were required to manage all patients of cut throat injury like simple closure, laryngotracheal repair and tracheostomy were performed in some of the patients depending on the extent of injury. Most common post operative complication is surgical site infections. The overall average duration of hospitalization was 20 days.*

Conclusion: *The management of cut throat injury patients require a multidisciplinary approach with close collaboration of otolaryngologist, anesthetist and psychiatrist. Cut throat injury is one of the cause of morbidity and mortality in our hospital.*

Background

Inclusion criteria

-Cut throat injury patient who were admitted in our hospital.

-Patient 15 to 60 years of age.

-Patient who gave their consent.

-Patient who were ready for follow up.

Cut throat injuries are rare and is potentially lethal form of injury that can lead to death of patient due to blood loss. Cut throat injuries require

immediate management. Cut throat injuries can be incised, stabbing, gunshots and lacerated wound which can be due to homicide, accidental and suicidal attempts. Globally, cut throat injuries account for approximately 5% to 10% of all traumatic injuries with multiple structures being injured in 30% of patients^[1,2]. However, in developing countries the incidence is increasing at a fast rate because of increasing conflict over

limited resources, poor socioeconomic status, poverty, unemployment and substance abuse.

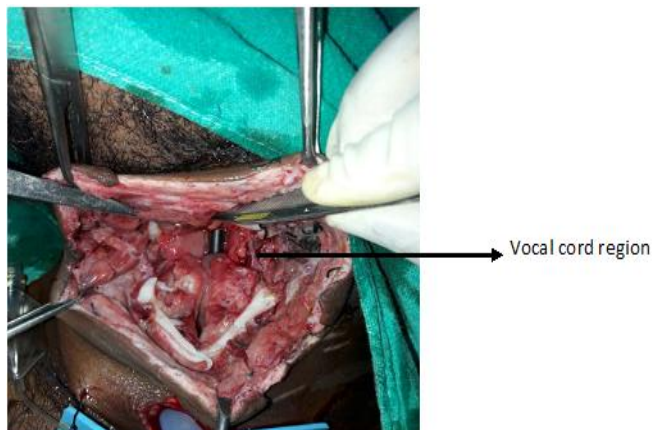


Fig 1 shows transaction of thyroid cartilage level showing ryle's tube and also transaction of pharynx



Fig 2 shows Stent placement in between vocal cords

The etiology of cut throat injuries can be broadly divided into suicidal, homicidal or accidental. Family disputes, psychiatric illnesses and poverty are the main triggering factors in suicidal attempts. The cause of homicide are interpersonal conflict, family disputes and land related disputes [3]. Accidental causes mostly related to the road traffic accident and fall injuries [16]. Cut throat injuries can involve major blood vessels and wind pipe, so injury to these structures can cause death of patient. The management of these injuries requires a multidisciplinary approach requiring the close collaboration of the Otolaryngologist, the anesthetist and the psychiatrist [5-8]. The anesthetist secures an airway for proper breathing of patient;

the otolaryngologist assesses the injury and repairs the injury with the aim of restoration of swallowing, phonation and breathing. The psychiatrist provides adequate care and supervision after surgical treatment [3,5,8]. All these factors provoked us to conduct this study and to describe our experience in the management of cut throat injuries, etiology, pattern of injuries and treatment outcome of these injuries.

Methods

This was a combined retrospective and prospective study of cut throat injury patients who came to the emergency of Maharani Laxmi Bai Medical College between September 2017 to September 2018. Maharani Laxmi Bai medical college is located in Jhansi city. All patients who presented with cut throat injury during the study period were included in the study.

Exclusion criteria

- Patient who were brought dead.
- Minor neck injuries not admitted to hospital.
- Patients refuse to give consent.
- Patients with head injury.

Data was arrange according to name, age, sex, pattern of injury, cause of injury, site and extent of injury, duration of hospital stay and outcome of treatment. The result were expressed as percentage of total cases included in study.

Results

A total of 20 patients presented to our hospital with cut throat injuries during the period of study. There were 12 males and 8 females with a male to female ratio of 3:2. The age of patient ranged from 15 to 60 years with a average age of 30 years.

Distribution of patients according to type of treatment

Type of treatment	No.	%
Simple closure	4	20
Laryngeal repair	16	80
Ligation of major blood vessels	3	15
Blood transfusion	10	50
Tracheostomy	16	80
Pharynx repair	2	10

20 (100%) patients were discharged with no morbidity, 2 (10%) patients were discharged with voice change. Only 8 (40%) patients were came for regular follow-up to 6 months and the remaining 12 (60%) patients were lost to follow-up.

Discussion

In this study, most of cut throat injury patients were mostly young ,in their third decade of life and males are more affected than females which is similar to the finding elsewhere^[1,6,7]. Male preponderance is more due their active participation in risk taking behaviors and their frequent involvement in interpersonal violence.

Distribution of patients according to the cause of cut throat injury.

Cause of cut throat injury	Motivating Factors	No.	%
Homicidal injury	Interpersonal conflict	5	25
	Land dispute	3	15
	Family problem	2	10
	Political conflict	2	10
Suicidal attempt	Psychiatric illness	2	10
Accidental injury	Road traffic accident	4	20
	Fall from height	2	10
Total		20	100

In our study the major causes of cut throat injuries due to homicidal and then the accidental injury is second most common factor for cut throat, and remaining patients were due to suicidal attempt. Interpersonal conflict was the most common motivating factor for homicidal injury whereas psychiatric illness and road traffic accidents were the most frequent motivating factors of suicidal attempt and accidental injuries respectively. The pre hospital care of trauma patient has been reported to be the most important factor in determining the ultimate outcome after the injury^[4]. Exposed hypopharynx and or larynx after cut throat, hemorrhage, shock and asphyxia from aspirated blood are commonest cause of death following cut throat injury. In this study, simple

closure, laryngeal repair and tracheostomy were the most common surgical procedures performed. Similar treatment patterns were reported by other authors^[1,3]. Cut throat injuries require a multidisciplinary approach involving the anesthetist and psychiatrists and otolaryngologist working in conjunction for better prognosis and outcome^[5-12]. In this study, psychiatric consultation were done for patients that attempted suicide.. This was because the suicidal attempt is a sign of mental illness and there is possibility of a second attempt^[9].10% of patients developed complications of surgical site infections ,the most common complications. In our study, the cut throat injuries were successfully without complications in 90% of cases, and one of our patient developed pharyngeal fistula which healed eventually after giving glycopyrolate injections for few days.

Conclusions

Cut throat injuries can cause morbidity and death if not managed on time. The objective of the study was to analyze the cause, pattern, and management outcome of cut throat injury patient. In our study the commonest cause of cut throat injury is homicidal followed by road traffic accident. The low socioeconomic class is commonly affected. Improvement of law and order, as well as socioeconomic condition, and establishment of efficient emergency health care services for rapid transport of injured patient to hospital will reduce morbidity and mortality of patient.

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