Reviewer's report

Title: Cut throat injuries at a University teaching hospital in northwestern Tanzania: A prospective review of 98 cases

Version: 1 Date: 23 May 2013

Reviewer: Neville Shine

Reviewer's report:

Overall the submitted article has some minor and major flaws and would require significant revision to be acceptable for publication.

Major
1. The introduction is unnecessarily extensive and the majority would be more appropriately put in the discussion section including the following:

“The incidence of cut throat injuries irrespective of the cause is on the increase worldwide [3].

Globally, approximately 5% to 10% of all trauma involves penetrating neck trauma, with multiple structures being injured in 30% of patients [4-7]. The problem is increasing at a fast rate in developing countries partly because of increasing conflict over limited resources, poor socioeconomic status, poverty, unemployment, easy access to firearms, alcohol and substance misuse and increased crime rates [8].

The etiology of cut throat injuries can be broadly divided into suicidal, homicidal or accidental in occurrence [3, 9]. Familial troubles, psychiatric illnesses and poverty are documented triggering factors in suicidal attempts. The triggering factors for homicide are political conflict, familial, land related disputes and sex related crimes [9, 10, 11]. Regarding accidental causes mostly related to the road traffic accident and fall injuries [10].

Anatomically, the neck can be divided into three major zones in order to aid in the decision making for diagnostic tests and timing of surgery [9, 13]. Zone I injuries occur at the thoracic outlet, which extends from the level of the cricoid cartilage to the clavicles. Zone
II injuries occur in the area between the cricoid and the angle of the mandible. Injuries here are the easiest to expose and evaluate. Zone III injuries are between the angle of the mandible and the base of the skull. Although zones I and III are protected by bones and the vital structures in the zone II are not protected by bone, so the risk of injury is different in three zones [9-13]. Cut throat injuries may be fatal if major blood vessels of the neck are involved, resulting in hemorrhage and hypovolaemic shock or if there is aspiration of blood or severe airway obstruction from edema and fractured laryngeal skeleton [4-7, 9]. These injuries pose a great challenge because multiple vital structures are vulnerable to injuries in the small, confined unprotected area [9]. Up to 30% of the injuries involve multiple structures [4-7]. The management of these injuries requires a multidisciplinary approach and could be managed with better prognosis if the patients present early to the hospital and are given prompt attention. This requires the close collaboration of the Otolaryngologist, the anesthetist and the psychiatrist [11, 14, 15]. The anesthetist secures an uncompromised airway and makes sure the patient is breathing; the otorlaryngologist assesses the injury and repairs the severed tissues with the aim of restoration of swallowing, phonation and breathing. The psychiatrist provides adequate care and supervision during and after surgical treatment [9, 11, 14, 15]. However, in most developing countries such as Tanzania, late presentation to health facilities coupled with lack of advanced pre-hospital and ineffective ambulance system for transportation of patients to hospital care contributes significantly to increasing morbidity and mortality [9, 16, 17].”

In the methods section there are several minor and major issues.

Minor

2. Firstly the following description is overly verbose and unwarranted: “BMC is a referral, consultant and teaching hospital for the Catholic
University of Health and Allied Sciences-Bugando (CUHAS-Bugando) and other paramedics and it is located in Mwanza city in the northwestern part of the United Republic of Tanzania. It is situated along the shore of Lake Victoria and has 1000 beds. BMC is one of the four largest referral hospitals in the country and serves as a referral centre for tertiary specialist care for a catchment population of approximately 13 million people from neighboring. There is no trauma centre or established advanced pre-hospital care in Mwanza city as a result all trauma patients are referred to BMC for expertise management.”

Major

3. “Patients who presented to the A & E department between October 2010 and January 2013 were prospectively enrolled in the study after signing an informed written consent for the study.” This statement is somewhat confusing. Was it only patients with penetrating neck injuries who signed consent that were included? If so, how many patients with neck injuries who did not sign were excluded? Also, as some patients presented in a “shocked” state, how was the informed consent acquired? Some patients were under 18, who consented for these patients? How was retrospective consent acquired for those included retrospectively? If only those patients who were available for retrospective consent, how many were unavailable?

4. “All recruited patients were first resuscitated in the A&E department according to Advanced Trauma Life Support (ATLS).” This sounds as if recruitment preceded resuscitation. Clarification is required.

5. “An informed written consent was sought from patients / relatives who were recruited prospectively.” Please clarify at which point the consent was performed.

6. “During the period of study, a total of 98 patients with cut throat injuries were enrolled into the Study” Please clarify inclusion and exclusion criteria and total number of presentations of penetrating neck injuries both included and excluded over the study period.

7. “Of these, 12 (12.2%) patients were studied retrospectively” How was the retrospective period of analysis defined and why? There seems to be no logical reason to pick these patients to be retrospectively analyzed and not continue the retrospective analysis further or indeed exclude them completely from the review.
8. The results are largely presented in table format. It is interesting that the Authors’ documented no neural injuries although the need for permanent tracheostomy and voice change would suggest recurrent laryngeal nerve damage but it is not documented either at surgical exploration or clinical evaluation of vocal cord function.

The documentation of anatomical damage, site and extent would be of the utmost interest to the practicing surgeon and is only given superficial treatment.

“the remaining 3 (3.4%) patients were discharged with permanent disabilities related to permanent tracheostomy and permanent voice change”

9. “This has great economic impact since these are people in their most productive years and the injuries impose a considerable burden on their families and the society as a whole. The fact that the economically productive age-group were mostly involved demands an urgent public policy response.” This statement is profoundly disturbing as the authors present the thesis that the economic potential of the predominant age and gender group in the study under review is what demands an “urgent policy response”. Surely it is the doctors role to advocate for all patients regardless of race, gender, age or socio-economic circumstance and the authors assertion should be withdrawn.

Finally, it is unclear as to where logistic regression analysis has been applied to the data. Please clarify

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

No competing interests