

Human Bite: Report of a Case with Review of Literature

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Human bite injuries are usually rare. The cases that are frequently reported in the literature relate to cat and dog bites, or other mammalian bits but cases of human bites are not reported frequently. For over half a century, oral and maxillofacial surgeons have been treating such injuries of head and neck.¹ Most of these bites occur during interpersonal fights, whereas some are associated with sexual activities.³

Case Report

A fourteen year old male patient reported to the Department of Oral and Maxillofacial Surgery with the chief complaint of bleeding from left cheek region since 2 hours (Fig 1). The history of the patient revealed that there was assault by other person during fighting by biting. At the time of evaluation there was approximately 1.5x1 cm cut lacerated wound with ragged edges, with associated asymmetry and oozing of blood from the same wound. On palpation, there was no hard tissue injury. The patient was administered tetanus immunoglobulin stat followed by antibiotics, thorough irrigation and debridement of wound and margins.

The wound was closed using 3'0 vicryl and 4'0 nylon (Ethicon) and put on antibiotic therapy. The sutures were removed after 1 week. Post operative healing was uneventful(Fig 2 and Fig 3).

Discussion

Human bite injuries are more severe than other animal bites due to multifocal microbial flora of the oral cavity. So the risk of infectious complications should never be underestimated. Human saliva is reported to contain bacterial loads at the order of 108 per milliliter which can increase in cases of periodontal disease and oral sepsis.⁴

Bite wounds are contained with multitude of micro organisms so prevention of local wound infection is of paramount importance. Proper debridement along with primary tissue closure remains mainstay of treatment of all bite wounds.² The patient should also be administered tetanus prophylaxis (tetanus immunoglobulin) and rabies prophylaxis.

The use of prophylactic antibiotics has been shown to reduce the risk of local wound infection. Parenteral therapy and hospitalisation has been advocated for immunodeficient and medically compromised patients.⁷

The legal implications of the injury should also be addressed in such cases. The vast number of these cases are associated with hurt on part of person (interpersonal violence or sexual activities) or child abuse which is a punishable offence. Henceforth, the

documentation of such events should be clear, concise and complete. It becomes primary duty of the attending surgeon to notify the appropriate agency for the same.

According to the current practice, the management of human bite injuries involves adherence to principles of primary wound care of irrigation, debridement, antibiotic prophylaxis, tetanus and rabies prophylaxis, and primary or delayed primary closure of the wound.

Irrigation of sustained bite injuries should be done with high pressure irrigation for reducing infection rates of contaminated wounds. The most practical way can be the use of 20 to 35 ml syringe equipped with 18-20 gauge needle to irrigate the wound. The requisite amount of saline varies from 150-250ml. During this, adequate steps should be taken to ensure protection of vital structures. Normal saline is the irrigant of choice as antibiotic solution offer no significant advantage.⁵

Irrigation is followed by tissue debridement. The least required amount of tissue debridement should be done as the overall blood supply is good in the facial region.

The operative management following debridement can be planned as per the type of wound sustained. Classification by Lackmann et al⁶ modified by Stefanopoulos PK and Taranzopoulou AD¹ for facial bite wounds (Table I) can be helpful in determining the type of treatment required for the type of injury sustained.

Table I Classification of Facial Bite Injuries

Type	Clinical findings
I	Superficial injury without muscle involvement
II A	Deep injury with muscle involvement
II B	Full thickness injury of the cheek or lip with oral mucosal involvement (through and through wound)
III A	Deep injury with tissue defect, (complete avulsion)
III B	Deep avulsive injury exposing nasal or auricular cartilage
IV A	Deep injury with severed facial nerve and/or parotid duct
IV B	Deep injury with concomitant bone fracture

The primary closure is usually advocated for the bite wounds of the facial region. But in the wounds where the characteristics of the wound or factors that lead to high contamination rate are suspected, waiting for 24 hours after the injury is permissible before closure of the wound. But in cases of avulsive injuries of the lips, ears, nose, or forehead they should be closed immediately.²

Conclusion

Although, there is no standard protocol that exists to treat human bite wounds. There have been many management methods used to treat these injuries since time immemorial. But, in particular, the basics of primary wound management should be followed to ensure acceptable and harmonious results. Primary closure, with the use of various loco regional flaps is indicated for most facial bite

wounds.

References

References are available on request at editor@healtalkht.com



Fig. 1



Fig. 2



Fig. 3

