

MANAGEMENT OF SOFT TISSUE WOUNDS OF THE FACE

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Abstract:

In a polytrauma, the face may be involved or there may be isolated injury to the face. The face consists of several organs and aesthetic units. The final outcome depends on initial wound care and primary repair. So one should know the do's and don'ts. Disfigurement following trauma, become a social stigma and has the gross detrimental effects on the personality and future of the victim. Knowledge of applied anatomy and aesthetic sense and meticulous traumatic tissue handling expertise, coupled with surgical skill to repair all the composite structures is necessary for the treating surgeon.

Keywords: Facial injury and management, facial trauma, soft tissue, trauma face.

Introduction:

Soft tissue injury may or may not have associate fractures. Due to complexity of face, it is essential to anticipate the injuries in various structures underneath the wound.

The first chance is the best chance for repair as it decides the outcome. The surgeon needs to understand the biomechanics of tissue wounding, biochemistry, molecular biology of wound healing and the art of soft tissue repair.

Aims and Objectives:

The main aim of this study is to minimise disfigurement of face and preventable soft tissue complications.

Materials and Methods:

22 patients of facial injury between the age group of 18 to 35 years were included in the study. There were 15 males and 7

females who sustained injury in road traffic accident and due to fall.

Clinical evaluation:

Facial injuries are rarely life threatening. The types of soft tissue injuries encountered include abrasions, tattoos, simple or complex contused lacerations with loss of tissues, avulsions, bites. Common etiologies are road traffic accidents, blast injuries, thermal, chemical injuries, human bites, animal bites caused by different animals.¹ Control of bleeding and resuscitation takes an upper hand, if the patient is prudently managed, may lead to shock and death. The first line of defense in nasal bleeding is packing, whereas oral bleeding is controlled by direct pressure and suture ligation of bleeding sites.²

Various injuries of the face encountered in the study were as under.

- 1. Periorbital and frontal injury:** Rounding or laxity of canthai suggests canthal injury are naso-orbital-ethmoidal fracture. Any injury near the eye should prompt a check of visual acuity and evidence of globe injury.³ Lacerations that involve the lead margins require careful closure to avoid lead notching and misalignment.
- 2. Nose:** The nose is at high risk to trauma due to its prominent position. The external soft tissue is assessed for lacerations or loss of soft tissue. The frame can be assessed by asymmetry or deviation of the nasal dorsum. Larger defects need local flaps which should be done primarily if bone or cartilage is exposed.
- 3. Ear:** Injury to the ear is common as it is also prominent organ. The pinna should be examined for lacerations or loss of tissues. It is important to find out whether the skin cover is totally bare or intact on at least one surface of the cartilage.
- 4. Cheek and oral cavity:** In laceration of the cheek, one should specifically look for injuries to the branches of facial nerve and parotid duct. In deeper wounds, there is possibility of damage to multiple muscles. In intra-oral injury, the muscle and overlying mucosa can be approximated as a single layer or individually. Lift lacerations can result in important cosmetic effects if not sutured in precise manner. Even minor misalignment of the white roll or vermilion border are conspicuous from a distance. Local or regional blocks are useful.

Results:

5 cases of periorbital and frontal injuries, 6 cases of nose injuries, 3 cases of ear injuries, 8 cases of cheek and oral cavity injuries were managed in emergency by cleansing of the wound, irrigation of the wound, debridement of the wound and meticulous primary suturing. There were excellent results in 7 cases, good in 10 cases and fair in 5 cases. No permanent disfigurement was seen in any case. In 2 cases, superficial infection was noted which was treated with appropriate antibiotics.

Treatment:

Early treatment includes cleansing with saline, removal of debris and loose epithelium and evacuation of blisters. The exposure method or loose dressing may be implied. Silver sulfadiazine is the most popular topical antimicrobial agent.





Discussion:

Meticulous repair after cleansing and debridement of wound is of primary importance in the soft tissue injuries of the face. If the skin grafts are required, surgeon should keep in mind the aesthetic units of the face.⁴ The skin of eyelid and its intimate relation with the pretorsal portion of the orbicularis oculi muscle, explains the high frequency of corneal damage and ectopia. The most important consideration in the management of ear injuries is prevention of cellulitis and suppurative chondritis.⁵ In the case of nose and mouth, the skin is adherent to the underlying cartilage.

Thus chondritis followed by deformity is not uncommon.

Conclusion:

It is an important and arduous task to repair and restore the function and aesthetics of the face because the face is an important physical feature, for complex social interactions in everyday life. Acute wounds of the different etiologies offer a significant challenge to the treating surgeons. Critical assessment of the nature and magnitude of the wound is of enormous importance.

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