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Case Study of Severe Maxillofacial Complex Type of Laceration with Surgical Intervention and Returned to Work within a Week

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Abstract: ***Complex type maxillofacial laceration surgically intervened at emergency department with treating doctor itself not waiting for multispecialty doctors.***

Keywords: facial laceration, complex type laceration, through and through lip laceration

1. Introduction and Importance

34 year old driver involved in a road traffic accident due to lack of sleep got a through and through complex maxillofacial laceration on the left side of his face. patient got no notable previous medical history and was cooperative. no trauma site other than maxillofacial injury was observed. He was active car driver with clean habits. During accident his left side of the face collided with broken glass and glass holding frame of his car.

2. Presentation of the Case

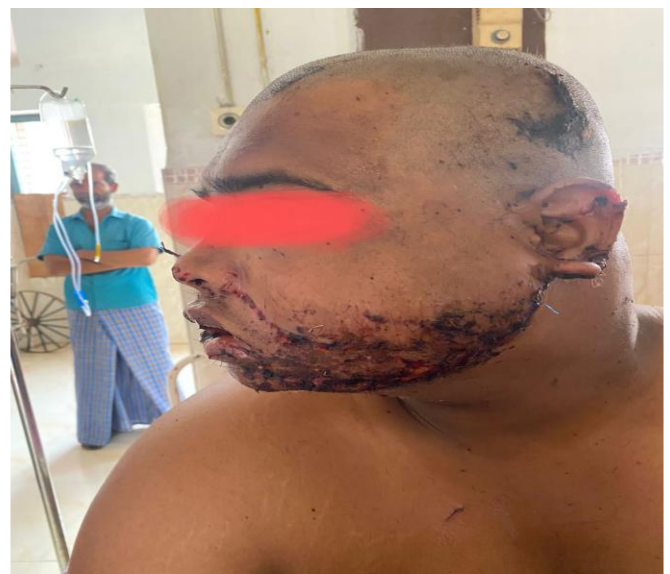
The patient is 34 year old driver who got an head on collision with other car and got his left side of the face collided with broken glass and glass holding frame on upper side of his car and got complex through and through maxillofacial laceration who arrived in ED and managed his soft tissue laceration with inspection cleaning and debridement targeted nerve blocks suturing and postoperative monitoring in ICU and discharged.

3. Examination Findings

Immediately after arrival at hospital primary survey [ABCDE] with resuscitation done with no need of resuscitation along with ECG BP and o2 saturation with pulse oximetry is checked and blood is collected and sent to lab and waited for online confirmatory of obvious findings and both chest (CXR) and pelvic x ray taken. Secondary survey is done to rule out obvious findings. No obvious findings other than left side complex facial laceration. Vitals were within normal limits. The complex type of laceration initiated from the corner of the lip joining to the tragus of ear, tearing lobule tragus, helix and tearing Darwin's tubercle. Intraorally left lower incisors and the adjacent teeth were visible and contacted with the external environment, upper left molar and adjacent teeth were visible and not injured and also it is vital with no pain and also communicated with external environment. Gingival tear is noted adjacent to left upper molars. Parotid duct remains intact. His postoperative wound is satisfactory and patient is on antibiotics in his home and patient is asked for suture removal which has to be removed after 6 to 7 days and some sutures which has to be present for some times.

4. Clinical Discussion

Before Treatment



After Treatment

Full detail of facial anatomy and physiology is a must before proceeding surgical intervention in relation to cosmetics, wound closure and wound dehiscence. The goals of laceration repair should start with wound cleaning and debridement, achieving haemostasis, gentle tissue handling,

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tension free everted approximation and aesthetically acceptable scar. Short acting and long acting local anesthesia can be combined like lidocaine and bupivacaine and so nerve blocks can be preferred than infiltration since after wound cleaning a nerve block may be distant sites to the laceration site and in this case nerve blocks is preferred than infiltration. Laceration repair kit must include 11 of sterile saline, bulb syringe or catheter tipped syringe for irrigation 18 to 27 gauge needle Gloves, gauze, suction, mayo scissors, sutures of choice, derma bond, cyanoacrylate, absorbable and non absorbable braided and monofilament sutures. Since the patient cannot come for further visits polypropylene or nylon suture is placed and in this patient . intraorally absorbable layered suturing is done and tension free multi - layered suturing is very important for better alignment of surface and deep anatomy. Head lamp and flat needle holder is useful in this patient in the ED ROOM. Introral mucosa closed with 4.0 vicryl. Wet lips is closed with 4.0 monoacryl sutures and dry vermilion lip is closed with 5.0 fast absorbing gut suture in a simple interrupted manner.

5. Conclusion

For a complex type maxillofacial laceration including through and through lip laceration after a thorough cleaning and debridement and irrigation with saline targeted nerve blocks to achieve proper anesthesia and 1ml bicarbonate is added to LA solution for long duration and proper suturing of choice for intraoral and muscle and skin with tension free closure yields good results and regular post operative medication and care gives a better cosmetic results and function.

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