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Case Report

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Facial soft tissue trauma and its aesthetic healing following primary closure in the ER - a case report

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Abstract

Facial soft tissue injuries are very common following road traffic accidents. The main drawback with these injuries is that the margins are not sharply demarcated and the wound is contaminated with dirt. Scarring is the most common complication and this is a case report of a laceration following RTA on aged sagging skin healing without scarring. A 76-year-old lady was brought into the emergency room with an alleged history of falling from a motorcycle following a collision with a speeding car on the highway. On extra oral examination, there was a long gaping laceration below the nose with another gaping laceration extending downwards from this existing laceration towards the lip with mild abrasions on the left infraorbital area and a laceration on the tip of the nose. The margins of the laceration were irregular and the surface was contaminated. Under local anesthesia, the wound was thoroughly debrided and ample saline-betaine wash was given to remove any minute sand particles. The margins were re-approximated and suturing was done using 4-0 nylon. Wound healing was satisfactory during suture removal. Six months later the overlying skin healing was complete and there was no scarring at all present.

Introduction

Facial soft tissue injuries are very common following road traffic accidents. With the increasing number of road traffic accident incidents, the number of cases reported at the emergency room has also been steadily increasing. Since these are accidents the margins are not sharply cut and the wound is contaminated with dirt. This is a case report of an aged lady who was brought into the emergency room for the management of a facial laceration following RTA.

Case Presentation

A 76-year-old lady was brought into the emergency room with an alleged history of falling from a motorcycle following a collision with a speeding car on the highway. There was no history of loss of consciousness, vomiting, giddiness or ENT bleeding following the injury. The patient was a known diabetic and hypertensive and was under medication for the same. The patient was conscious, coherent and cooperative. She was afebrile. On general examination, the patient's vitals were as follows, BP 130/80 mmHg, pulse rate 84 beats/min, respiratory rate 16 cycles /min and SpO2 98%. On systemic examination, there were no relevant findings.

On extra oral examination, there was a 44 mm long 7mm wide gaping laceration extending linearly from the right alar base to 2 mm beyond the left alar base with another gaping laceration extending downwards from this existing laceration starting at 2 mm lateral to the columella of the nose and ending 2 mm above the upper lip with mild abrasions on the left infraorbital area and a 3 x 1 mm 'c' shaped laceration on the tip of the nose. The margins of the laceration were irregular and the surface was contaminated, covered with slough and very minute sand particles and small stones. Intra orally no relevant findings were there. Tetanus prophylaxis was immediately given (Figure 1).

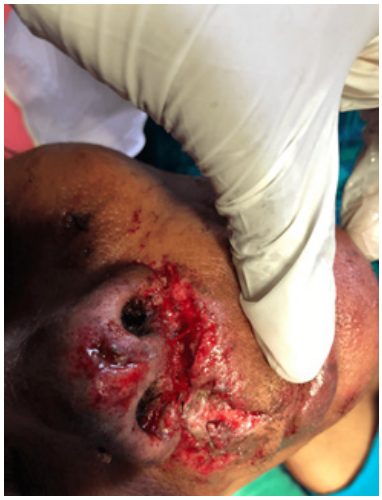

Figure 1 Pre-operative photograph.

Under local anaesthesia, the wound was thoroughly debrided and ample saline-betaine wash was given to remove any minute sand particles. The margins were re-approximated and suturing was done using 4-0 nylon suture material. Simple interrupted sutures were placed at the tip of the nose and at the smaller downward cut and sub-cuticular continuous sutures were placed along the length of the longest laceration. The patient was put on empirical antibiotics and analgesics for five days (Figure 2).

The patient was called on the fifth postoperative day for review and suture removal. Since the wound healing was satisfactory the sutures were removed. One month later the overlying skin healing was complete and there was no scarring at all present (Figure 3).

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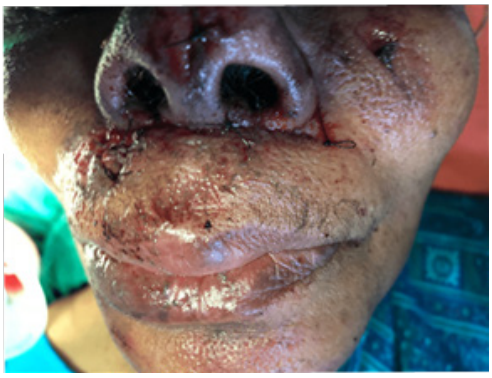

Figure 2 Immediate post-op photograph.

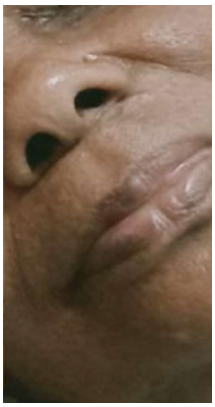

Figure 3 Six months post-op photograph.

Discussion

The main issue faced while treating soft tissue injuries following road traffic accidents is that the wound margins are ragged and the slough that is almost always contaminated. The shape of the remaining existing tissue only decides how the re-approximation could be done following debridement. Often times this ends up leaving scars at the suture sites. Facial scarring can lead to negative functional and social impacts. Timely, patient and artistic management of facial soft tissue injury is crucial for maximizing aesthetic outcomes.[1] In this case, immediate management of the soft tissue trauma was done following initial general examination and investigations. The direction of the laceration also plays an important role in wound healing without scarring.[2] In our case, one laceration was parallel to Langer's lines and one was perpendicular. While suturing care was taken to place the sutures in zones of less tension so that there was not much undue force generated when the underlying tissues were in movement that might hinder the healing process or promote scar tissue formation. First, the longer laceration was carefully repositioned and sutured which automatically aided in repositioning the shorter more displaced irregular wound margins. Continuous sub-cuticular sutures were placed using 4-0 nylon since they would have more tensile strength and lesser inflammatory response nylon sutures were selected.[3] Simple interrupted sutures were placed at the curvilinear laceration at the tip of the nose and along the laceration that was perpendicular to the long linear laceration. This aided in the ease of approximation of the irregular edges.[4] On the fifth post-operative day, the abrasions had completely healed and the suture sites were also well healed and showed no signs of infection or inflammation. All the sutures were removed following the application of topical anesthesia using a new no 12 scalpel blade. This prevented any possibility of tissue tug during suture removal.[5] Six months later the patient sent in a photograph and a thank you note saying there was no identifiable scarring present. The inconspicuous scarring was a fulfilling result as this was a contaminated laceration following RTA with irregular margins on sagging aged skin and scarring is the commonest complication in such scenarios.[6]

Acknowledgments

None.

Conflicts of Interest

None.

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