

Aesthetic and Functional Restoration in Postburn Microstomia using Z Plasty

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Abstract: ***Objective:** To assess use of oral commissuroplasty in post burn Microstomy. **Place:** Department of Plastic Surgery, SSB Kota Medical College. **Methodology:** Retrospective study was done on Patients who underwent lip commissuroplasty Post burn Microstomy. Patient aged between 17 to 50 years age. Patients had history of flame burn. Follow up duration for 6 weeks.*

Keywords: Post burn microstomia, z palsty, lip commissuroplasty

1. Microstomy

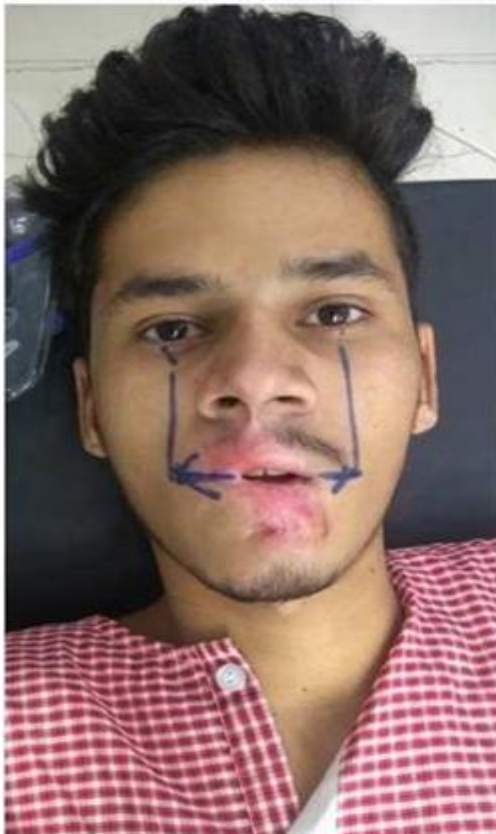
Decreased opening of mouth which can be congenital or acquired scarring. Congenital cause includes Freeman - Sheldon Syndrome. Acquired scarring is seen as facial burn (1). The average vertical mouth opening measure 40 - 50 mm, an opening of 25 - 35mm is functional and 10 - 24 mm is severely limiting. (3)

The complex anatomy of the oral commissaries with the extremely specialised functions make it challenging to re-

construct. (2). The goal of reconstruction are both aesthetic and functional.

2. Marking

The commissural marking was determined in relation to ipsilateral mid pupil. Also, the lateral margin of oral commissaries usually coincides with the lateral extend being the end of the nasolabial fold.



Operative Technique

The patient were operated using Z Plasty.

3. Results

Four patients underwent lip commissuroplasty between January 2020 to February 2023. There were 3 males and 1 fe-

male. All the patients were operated under general Anesthesia. Pre operative mean mouth opening were 1 finger. Post operative patient underwent balloon physiotherapy. The patients were followed up in every



Pre – operative

10 days post operative

10 days. After a duration of 6 weeks mean mouth opening was 3 fingers. Patient re-established normal speech, oral intake as well aesthetic appearance

4. Discussion

The lips are an important structure of the face. Burn injury may be due to electric burn, thermal burn, or due to chemical damage can lead to tissue damage and coagulative changes and healing occur by scar formation and contracture. Contracture disrupts orbicularis oris muscle sphincter leading to microstomia. Burned lips are often associated with face and neck burns. (5)

Microstomy post burn has both functional and aesthetic complications. Patient has poor oral hygiene, difficulty in respiration, nutrition deficiencies, facial expressions. The lip and commissure facilitate spoken language. Although the treatment of commissure injuries has evolved so much, the controversy continues both in the initial management and subsequent reconstruction. Some advocate conservative management using mouth splints usually 10–14 days after injury before making any definitive surgical plans (6). Many still believe the use of splints will prevent the need for surgical intervention. However, splinting alone will neither replace the full thickness skin loss and partial loss of the orbicularis oris, nor it will correct the subsequent deformities.

Only recently, the concept of early excision and resurfacing of the facial defect with skin graft has gained its importance in avoiding complications of postburn scars but is practiced in only few center.

*First employed by Dieffenbach in 1831, modified by Converse and later by Friedlander & Millard, the Y - V tech-

nique is a popular choice for treatment of commissural microstomia in burn patients. (3) (+) Ganzer (7) while describing his vermilion advancement flap noted that the mucosa in the angle of the mouth can be sufficiently mobilized and it may be possible to remove an epithelial triangle at the appropriate site and advance the entire commissure laterally. The trilobe mucosa advancement flap described by Converse, (8) which is widely used today, is composed of complete excision of scar at commissure down to mucosa sparing the orbicularis. A trilobe flap can then be created from the mucosa that is advanced over the defect and sutured in place.

5. Conclusion

Use of z plasty provide a good functional and aesthetic restoration of microstomy with reduced necessity for splinting and secondary procedure. It is one stage reconstruction with short operative time, and without aggressive undermining. The patient has short duration of hospital stay.

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