

Outcomes of orofacial contracture management following full thickness facial burns

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Severe orofacial burn injury may result in complications including orofacial contractures and microstomia. The risk of developing complications increases with increasing burn depth. This study aimed to quantify the extent of impairment and rehabilitation outcomes post full thickness orofacial burn injury.

Twelve consecutive patients (4 male, 8 female, mean age 41 years, range 17-61) presenting with full thickness orofacial burns (characterised by protracted wound healing of >21 days requiring surgical closure) met inclusion criteria over a 3 year period (representing 86% of all admitted with full thickness facial burns). A control group of 120 age-matched healthy participants (60 male, 60 female, mean age 41.5 years, range 16–80) was recruited for normative comparison.

Orofacial contracture management was initiated within 48 hours of admission and continued until functional goals were consistently achieved. For each participant, data was collected on demographic details, duration of orofacial contracture management, and vertical and horizontal mouth opening at start and completion of orofacial intervention.

Prior to intervention, participants had significantly reduced vertical ($p<0.001$) and horizontal ($p<0.001$) mouth opening range compared to controls. Following orofacial contracture management there was significant positive improvement in both vertical ($p<0.01$) and horizontal ($p<0.01$) mouth opening. Despite this improvement, patients continued to present with significantly reduced vertical ($p<0.001$) and horizontal ($p<0.05$) mouth opening range compared to controls post treatment. Average duration of therapy was 550 days.

This study demonstrates that patients with full thickness burn injury to the orofacial region improve with orofacial rehabilitation however they do exhibit long term loss in range of mouth opening.

Key Words

Outcome, facial burn, management, contracture

Nominated Stream for Oral Presentations

- Medical
- Nursing
- Allied Health
- Scientific

Nominated Stream for Poster Presentations

- Care
- Prevention
- Research