

Facial Artery Myomucosal Flap for Reconstruction of Partial Glossectomy Defects

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Nothing to Disclose

Objectives

- To present research supporting the use of the FAMM flap for post-partial glossectomy defects.
- We propose the use of the FAMM flap for improved tongue function where the defect is too large for primary closure, but where free tissue transfer could interfere with tongue function.

Background

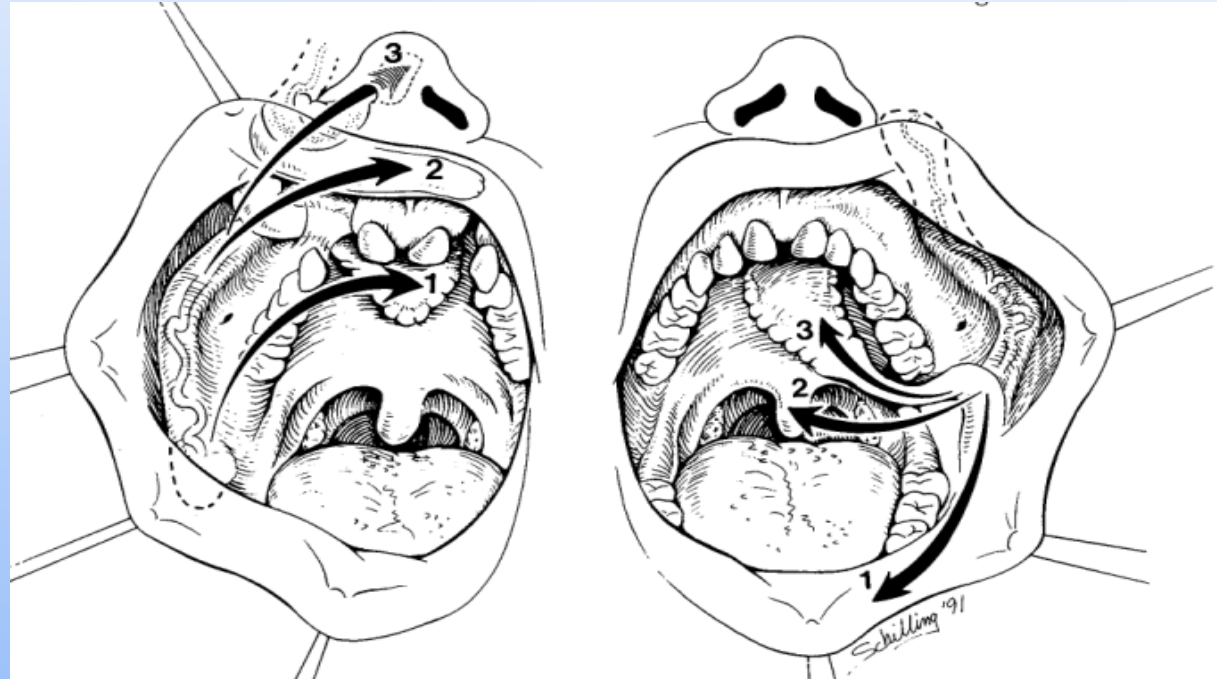
- Reconstruction of partial glossectomy defects can be challenging because of a lack of local flap options

Current Practice for Reconstruction	Challenges
Small Defects: Primary closure or STSG	Can lead to constriction of the tongue
Medium-Sized Defects: STSG or RFFF	RFFF can be bulky

Background

- The FAMM Flap reconstruction method was first introduced by Pribaz et al. in 1991 and used for the repair of intra-oral and intra-nasal defects
- Versatility of FAMM Flap:
 - Superiorly based for mucosal defect closure of anterior hard palate, alveolus, nasal septum and upper lip.
 - Inferiorly based for posterior hard, soft palate, lower lip, and floor-of-mouth
 - Usually performed in a two-stage reconstruction with flap division in the 2nd stage

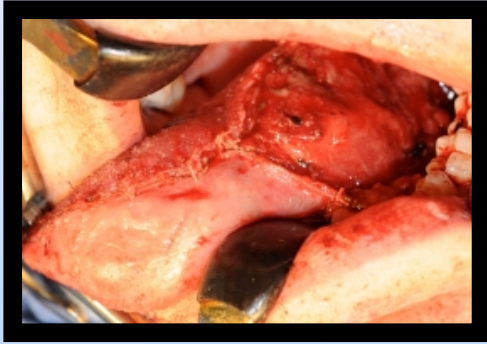
Background



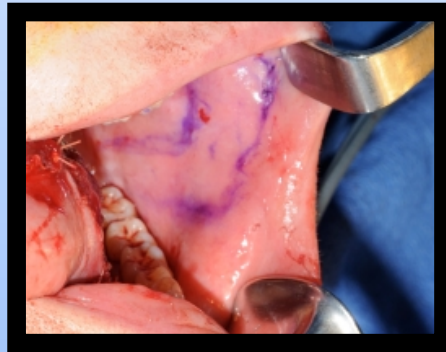
FAMM Flap Illustrations

Methods

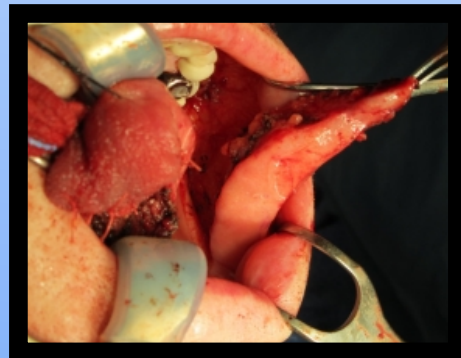
1. Tongue Defect



2. Flap Design



3. Flap Harvest



4. Flap Inset



6. Healed Flap



5. Healed Donor Site



Methods

Retrospective chart review of 19 patients who underwent partial glossectomy with FAMM Flap reconstruction between 3/1/2009 and 7/1/2013 at North Shore-Long Island Jewish

Outcome Measures

- Flap Viability
- Complications
- Functional Outcome

Results

Of the 19 Patients:

- All flaps provided adequate coverage
- No flap failures
- 2 easily resolved complications
- All had intelligible speech and adequate swallowing capabilities
- 16 rated their voice quality to be good, very good, or excellent with no feeding interferences

Conclusions

- The FAMM flap provides a good alternative to primary closure and split-thickness skin grafting post-partial glossectomy
- The flap is close in proximity to the defect and is of similar tissue composition
- The FAMM Flap produces a good functional outcome.

Significance of Findings

The FAMM flap provides an excellent alternative to partial glossectomy defects that are less than 50% of the total surface area of the tongue.

References

- Pribaz J, Stephens W, Crespo L, Grifford G. A new intraoral flap: facial artery Musculomucosal flap (FAMM) flap. *Plastic and Reconstructive Surgery* 1992; 90: 421-429
- Duffy FJ Jr, Rossi RM, Pribaz JJ. Reconstruction of Wegener's nasal deformity using bilateral facial artery Musculomucosal flaps. *Plastic and Reconstructive Surgery* 1998; 101: 1330-1333
- Dupoirieux L, Plane L, Gard C, Penneau M. Anatomical basis and results of the facial artery Musculomucosal flap for oral reconstruction. *British Journal of Oral Maxillofacial Surgery* 1999; 37: 25-28.
- Fassio E, Laure B, Durand JL, et al. [The facial artery-buccinator Musculomucosal flap for reconstruction of the palate]. *Rev Stomatol Chir Maxillofac* 1999; 100: 221-225
- Pribaz JJ, Meara JG, Wright S, Smith JD, Stephens W, Breuing KH. Lip and vermilion reconstruction with the facial artery Musculomucosal flap. *Plastic and Reconstructive Surgery* 2000; 105: 864-872
- Hatoko M, Kuwahara M, Tanaka A, Yurugi S. Use of the facial artery Musculomucosal flap for closure of soft tissue defects of the mandibular vestibule. *Int J Oral Maxillofacial Surg* 2002; 31: 210-211

References

- Heller JB, Gabbay JS, Trussler A, Heller MM, Bradley JP. Repair of large nasal septal perforations using facial artery Musculomucosal (FAMM) flap. *Annals of Plastic Surgery* 2005; 55: 456-459.
- Joshi A, Rajendraprasad JS, Shetty K, Reconstruction of intraoral defects using facial artery Musculomucosal flap. *British Journal of Plastic Surgery* 2005; 58: 1061-1066
- Ashtiani AK, Enami SA, Rasti M. Closure of complicated palatal fistula with facial artery Musculomucosal flap. *Plastic and Reconstructive Surgery* 2005; 116: 381-386; discussion 387-388.
- Ayad T, Kolb F, De Mones E, Mamelle G, Temam S. Reconstruction of Floor of Mouth Defects by the Facial Artery Musculomucosal Flap following cancer ablation. *Head and Neck* 2008; 30 (4): 437-445.
- Hogikyan ND, Wodchis WP, Terrell JE, Bradford CR, Esclamado RM. Voice-related quality of life (V-RQOL) following type I thyroplasty for unilateral vocal cord paralysis. *J Voice* 2000; 14(3): 378-86.
- Chen AY, Frankowski R, Bishop-Leone J, Hebert T, Leyk S, Lewin J, Goepfert H. The development and validation of a dysphagia-specific quality-of-life questionnaire for patients with head and neck cancer. *Arch Otolaryngol Head Neck Surg* 2001; 127: 870-976.